



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

April 7, 2020

Attachment 1 – Crew Statements

OPERATIONAL FACTORS

DCA20CA071

6 Feb 2020

Flight 5634 CLT-TYS

Upon contacting Atlanta Center on 135.35, we were told to climb to FL220 and delete the speed restrictions. Being in VMC conditions, Captain [REDACTED] elected to dial in a speed of 290 for the rest of the climb. At some point we were given 121.35 (ATL Center), and it was smooth at cruise, so we were doing 300-310 IAS. Being this late at night and with the recent passing storm, we left the seatbelt sign on for the entire flight. Several minutes later, this center controller advised us that according to his radar there was moderate to extreme precipitation at our 2-3 O'clock position for the next 40 miles. We were in clear air able to view the stars/moon and occasional lights on the ground, so, as best as I recall I replied with a thank you, we must be above it. Both of us had our radar on the entire flight. I dialed in between +500 to +700 in order to see if the radar was painting any precipitation, but nothing was displayed. Upon passing AVL, I remember stating to Stephen that I could see the AVL airport and even the Biltmore Estate. We were then given a pilot's discretion to 13,000. [REDACTED] dialed that in and waited several minutes before descending at which time I called the FAs for the in-range report. We were approximately 24 minutes out. We slowed and began our descent and started entering and exiting various cloud layers that were not painting any precipitation, we experienced very light/intermittent chop in the early stage of our descent, but at around 18,500 it felt like we hit a brick wall. The autopilot kicked off and we were descending rapidly., [REDACTED] pulled the power back and leveled the wings. I helped a little with keeping the aircraft in a desirable state, and within 3 seconds we were out of the cloud in VMC conditions again. We re-engaged the autopilot, but even in VMC we were experiencing moderate to extreme clear air turbulence. I turned on the sterile light and I called the back to see how the FAs were. I got no answer for several seconds. I then told Atlanta Center that we experienced extreme-severe turbulence from about FL190 down to 16,000. I tried the back again and this time a dead-heading check flight attendant, FA [REDACTED] answered the call and told me that the FWD FA had fallen and possibly twisted her ankle. I asked if she needed medical personnel at the gate, to which FA Rowan stated yes, please. Back on with ATC, we were transferred to 118.0, TYS Approach control and I relayed the situation of needing medical personnel at the gate for our FWD FA. I tried our company OPS frequency several times and could not get through, so I then sent an ACARS msg to our dispatcher asking for help. I let dispatch know about the turbulence encounter and that we had one injury. FA Rowan called again and stated that the AFT FA was also injured, and several passengers would need attention as well. Again, the seatbelt sign was on the entire flight. Once we were at the gate, several EMT personnel came on board to help with the injured. We coordinated with them over the next hour and a half. I had Capt [REDACTED] call the chief pilot on call and maintenance control to relay the events of the evening. No damage to the aircraft was evident during the walk-around.

Flight Crew Analyst Operation Report 45491**Overview:****Employee:****User Name:** [REDACTED]**Salutation:** Mr.**First Name:** [REDACTED]**Last Name:** [REDACTED]**Employee Number:** [REDACTED]**Job Title:** Captain**Organization:** PSA Airlines**Employee Base:** CLT - Charlotte, NC**FAA Certificate or Qualification Number:** [REDACTED]**FAA Certificate or Qualification Type:** Airline Transport Pilot**Address:** [REDACTED]**City:** [REDACTED]**State:** [REDACTED]**Province:** USA**Zip Code:** [REDACTED]**Country:** United States**Email Address:** [REDACTED]**Home Phone Number:** [REDACTED]**Work Phone Number:** [REDACTED]**Other Employees:****Employee Duty:** Pilot Monitoring/Pilot Not Flying**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant in Charge**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Extra FA**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Processing:****Status:** New**Can a deidentified version of this report be published in internal airline safety publications?:** Yes**ID:** [REDACTED]

Aware Date/Time: Fri, 07 Feb 2020 06:00 Z
Date/Time When Event Occurred: Fri, 07 Feb 2020 06:00 Z
Local Time When Event Occurred: 01:00
Viewer Accessible: No
Initial Notification Date/Time: Fri, 07 Feb 2020 08:38 Z
Submission Date/Time: Fri, 07 Feb 2020 09:28 Z
End of Trip Date/Time: Fri, 07 Feb 2020 06:20 Z
Source: Web Submission
Form Name: submission-form
Create both an ASAP and Incident report?: No
Exclude this report from Scoreboard: No

Event: 1**Baseline Risk Assessment****Likelihood:****Severity:****Risk Factor:****Description****ATC Information:****Name of ATC Facility:** ATLANTA CENTER**Aircraft Configuration:****Nickname:** N610NN**Tail Number:** N610NN**Aircraft Type:** CRJ-900**Flight Crew Employee Information:****Primary Duties During Time of Event:** Pilot Flying**Flight Information:****Departure Airport, Runway and Gate:** KCLT/CLT - 18C/36C - E24**Flight Number:** 5634**Time of Day:** Night**Scheduled Arrival Airport, Runway and Gate:** KTYS/TYS - 05R/23L**Landing Airport, Runway and Gate:** KTYS/TYS - 05R/23L - 12**Filed Altitude (MSL):** 22000**Illness/Injury Event:****Illness/Injury Event:** Yes**Narrative:**

On 02/07/2020, flight 5634 departed the gate in CLT after a four hour delay due to the severe weather in the area throughout the day. While loading passengers, I took a last minute look at the Nexrad Radar to check for anything convective along our route of flight in which I didn't see anything other than a little yellow and light green. I had briefed the passengers in my pre flight briefing that we could expect a few bumps in flight due to the weather that had passed through the area during the day. We departed 18C on the SID with the radars on to pick up any precipitation. We climbed up to FL220, and it was smooth flight. I left the seatbelt sign on for the entire flight. ATC reported to us that there was some light/moderate/heavy/extreme precipitation in our vicinity as I dont recall the exact reference of the clock hand they usually give us. Both of us had our radars on, and I had my tilt around 2.00 degrees, and the Captain had his around 0.7 from what I recall. We were not painting any sort of precipitation on our route. We were in clear air with clouds beneath us. Pilot monitoring got the in range report from the flight attendants. ATC gave us

pilots discretion to 13,000. I dialed in 13,000, and we pointed at it. I delayed my descent a minute or two then started down. Descending through around FL190-200 I turned my tilt down to check a cloud deck I saw about 1 to 2 o'clock in which the radar didn't show any precipitation. I told the captain that we may hit a little turbulence so I was starting to slow back to 280kts. Seconds later we went into the cloud where we encountered extreme/severe turbulence where the autopilot kicked off and the nose pitched down pretty hard. I already had my hands on the control wheel before the autopilot kicked off so I reacted by reducing the power for the nose down attitude. We did not encounter any precipitation or ice while in the turbulence that I recall in the turbulence. When we came out of the clouds, we continued to get moderate turbulence in clear air at this time around 15,000 ft or so. The captain called back to check on the flight attendants, and a DH FA answered and stated we had injuries to both FA and passengers. We were less than 15 min out from our destination. We tried calling ops to start an ambulance but we did not get an answer. We had approach relay the information. An ACARS was sent to dispatch. They gave us a descent to 8,000 and then down to 5,000 where we landed. We taxied to the gate where EMS met us. After shutting down the plane, I went into the cabin to assist with helping passengers and the forward flight attendant. EMS responded and provided medical attention to passengers. I notified the on call chief pilot and inflight supervisor. I wrote up the airplane for the turbulence encounter along with use of the aft portable O2 bottle. This was Captain OE for me, and I was pilot flying.

Phase of Flight:**Flight Phase at Start of Event:** Descent**Weather:****Meteorological Conditions:** IMC**Weather Description:** CLEAR ABOVE A CLOUD DECK**Cause****Narrative:**

Turbulence

Weather:**Turbulence:** Extreme**Detection****How Event Detected:****Flight Crew:** Yes**Self Awareness/Scan:** Yes**When Event Detected:****In-Flight:** Yes**Reaction****Action Taken:****Accepted:** Yes**Flight Crew:****Corrected Pitch/Power:** Yes**Flight Status after Event:****No Disruption:** Yes**Operations:****Paramedics Met Aircraft:** Yes**Suggestions****Narrative:**

The upset recovery training we do helped me out in this extreme turbulence

encounter.

WARNING: The information in this document may be protected from disclosure under 49 U.S.C., section 40123 and 14 CFR part 193.
Report generated Fri, 07 Feb 2020 13:59 Z

Inflight Analyst Operation Report 11896

Overview:

Employee:**User Name:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Employee Number:** [REDACTED]**Job Title:** Flight Attendant**Organization:** PSA Airlines**Employee Base:** ORF - Norfolk International Airport**Address:** [REDACTED]**City:** [REDACTED]**State:** [REDACTED]**Zip Code:** [REDACTED]**Country:** United States**Email Address:** [REDACTED]**Home Phone Number:** [REDACTED]**Mobile Number:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Extra FA**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Processing:****Status:** New**Can a deidentified version of this report be published in internal airline safety publications?:** Yes**ID:** [REDACTED]**Aware Date/Time:** Fri, 07 Feb 2020 12:00 Z**Date/Time When Event Occurred:** Fri, 07 Feb 2020 12:00 Z**Local Time When Event Occurred:** 00:45**Viewer Accessible:** No**Initial Notification Date/Time:** Fri, 07 Feb 2020 16:12 Z**Submission Date/Time:** Fri, 07 Feb 2020 16:32 Z**Source:** Web Submission**Form Name:** submission-form

Exclude this report from Scoreboard: No**Event: 1****Baseline Risk Assessment****Likelihood:****Severity:****Risk Factor:****Description****Aircraft Configuration:****Nickname:** N610NN**Tail Number:** N610NN**Aircraft Type:** CRJ-900**Cabin Employee Information:****Position:** FWD**Primary Duties During Time of Event:** Flight Attendant in Charge**Cabin Events:****Cabin Lighting:** Medium**Outside Lighting:** Night**Flight Information:****Departure Airport, Runway and Gate:** KCLT/CLT - 05/23 - NA**Flight Number:** 5634**Scheduled Arrival Airport, Runway and Gate:** KTYS/TYS - 05R/23L - 10**Landing Airport, Runway and Gate:** KTYS/TYS - 05R/23L - 10**Illness/Injury Event:****Cabin Crew:** Injury**Flight Deck Crew:** Injury**Location Where Injury Occurred:** Cabin**Passenger:** Injury**Narrative:**

In the final approach [REDACTED] went towards the back to collect trash and I was cleaning up the galley. I had the third cart pulled out to put away first class snacks when I felt the first shake of the aircraft. I stopped and put the cart away and reached for the closest handheld on the galley service door. Next thing I knew everything was floating in the air and I hit my head on the ceiling and dropped to the floor. My legs looked weird but all I knew is I had to secure the red locks on the carts. I tried to stand and could not. I pulled myself to my jumpseat and locked into place. the passenger in 1D asked if I was ok and the deadheading pilot got up and pulled me to pax seat 3D. [REDACTED] [REDACTED] took my jump and carried out the rest of the flight for the front and her line partner [REDACTED] [REDACTED] took the aft part of the flight. I was passed some ice for my ankles and my head and the medics were called and waiting for me when we arrived in TYS. They took me via ambulance to Blount Memorial where I

found out I had tow fractures in my right ankle and one fracture in my left. I had x rays and an MRI as well.

Cause**Narrative:**

Severe Turbulence

Detection**How Event Detected:**

Cabin Crew: Yes

Flight Crew: Yes

Passenger: Yes

Self Awareness/Scan: Yes

When Event Detected:

In-Flight: Yes

Reaction**Suggestions**

WARNING: The information in this document may be protected from disclosure under 49 U.S.C., section 40123 and 14 CFR part 193.

Report generated Thu, 13 Feb 2020 20:56 Z

Inflight Analyst Operation Report 11895

Overview:

Employee:**User Name:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Employee Number:** [REDACTED]**Job Title:** Flight Attendant**Organization:** PSA Airlines**Employee Base:** CLT - Charlotte, NC**FAA Certificate or Qualification Number:** [REDACTED]**FAA Certificate or Qualification Type:** Flight Attendant**Address:** [REDACTED]**City:** [REDACTED]**State:** [REDACTED]**Zip Code:** [REDACTED]**Country:** United States**Email Address:** [REDACTED]**Home Phone Number:** [REDACTED]**Mobile Number:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Extra FA**First Name:** [REDACTED]**Last Name:** [REDACTED]**Processing:****Status:** New**Can a deidentified version of this report be published in internal airline safety publications?:** Yes**ID:** [REDACTED]**Aware Date/Time:** Fri, 07 Feb 2020 00:01 Z**Date/Time When Event Occurred:** Fri, 07 Feb 2020 00:01 Z**Viewer Accessible:** No**Initial Notification Date/Time:** Fri, 07 Feb 2020 14:57 Z**Submission Date/Time:** Fri, 07 Feb 2020 15:52 Z**Source:** Web Submission**Form Name:** submission-form

Exclude this report from Scoreboard: No**Event: 1****Baseline Risk Assessment****Likelihood:****Severity:****Risk Factor:****Description****Aircraft Configuration:****Nickname:** N610NN**Tail Number:** N610NN**Aircraft Type:** CRJ-900**Cabin Employee Information:****Position:** AFT**Primary Duties During Time of Event:** Flight Attendant**Cabin Events:****Cabin Lighting:** Medium**Outside Lighting:** Night**Potential Injury Hazard:** Yes**Turbulence:** Severe**Flight Information:****Departure Airport, Runway and Gate:** KCLT/CLT**Flight Number:** 5634**Scheduled Arrival Airport, Runway and Gate:** KTYS/TYS**Landing Airport, Runway and Gate:** KTYS/TYS**Illness/Injury Event:****Cabin Crew:** Injury**Flight Deck Crew:** Injury**Location Where Injury Occurred:** Cabin**Narrative:**

After playing the approach announcement after the In-Range call, I was going through the cabin to collect trash and do my required compliance check. When I got to the couple rows prior to row 15, we felt the initial bump. I grabbed hold of an overhead bin to support myself from falling on a passenger and that is when the severe turbulence occurred. I do not recall much other than what the passengers around me told me. Evidently the plane took a nose dive and I hit the ceiling of the aircraft hard enough to crack the ceiling of the fuselage and my feet also hit the ceiling hard enough to leave skid marks on it. I blacked out from this hit and when I awoke soon after I was looking up at passengers who were trying to get me to crawl to seat 15D for safety during the rest of the flight. I remember looking back and yelling to make sure everyone else was okay, I do not recall many answers, but the man in seat 15C notified me that he had hit his head hard; his name from what I recall was [REDACTED]

After we finally landed, the paramedics came on to take in the situation. During this time, any passengers who were able, were asked to exit the aircraft. Soon after coming on, the paramedics brought on a wheelchair to help me off because of the symptoms I was able to register and report. I was then taken by EMS to the emergency room at The University of Tennessee Medical Center. I believe that the time I remember being put in the ambulance was roughly around 2:06 along with [REDACTED] the passenger with the head injury. Once at the hospital I was taken to have various X-Rays done on my left knee and my back/ ribs/ and shoulders. I also was taken to have a CT scan done on my head. It was determined that I do have a concussion as a result in addition to rather significant back pain, and when my knee hit whatever hard surface, the physician said that from what he could assess, the issue with it was a large amount of fluid build-up. Because of my knee, they had to put a large brace on it to hold it in place. I have been told that I need to get an MRI for my back (and all things considered the doctor said my knee as well). I currently am having a difficult time taking deep breaths with my back hurting the way it is, but other than that, I am able to walk short distances with the brace on. My concussion is making it really difficult to stay awake, but I haven't had time to rest yet, I have been up for over 24 hours now to add to all of this and the flight I am trying to deadhead out on to get back to Charlotte has been delayed to weather conditions.

Cause

Narrative:

After the crew was patched together in a rush due to the many cancelations and delays as the result of weather, we all boarded the plane. The pilot I briefly met and he delivered a quick NEWDATES to us so we could get our passengers boarded. He did inform [REDACTED] (a deadheading flight attendant who had to fill in for [REDACTED] who wasn't able to get to the gate quite yet, as she was trying to leave the flight she had just come in on to get there) and myself that the ride would be brief and bumpy. This we all expected because of all of the issues we had been dealing with all day already. Even still, it has been made known to me that if the pilots have any indication of moderate to severe turbulence, they reroute or they delay the flight or whatever they need to do to ensure the ultimate passenger safety. I did not doubt that this pilot was the same and I still do not now. I truly believe that this incident was completely undetected, or if it was at all detected prior to the event, there was not enough time to alert us before it occurred. I believe that the severe turbulence we encountered was very much unexpected, and I am grateful that our pilots were able to land the plane safely.

Detection

How Event Detected:

Cabin Crew: Yes

Flight Crew: Yes

Passenger: Yes

Self Awareness/Scan: Yes**When Event Detected:****In-Flight:** Yes**Reaction****Narrative:**

My initial reaction to the turbulence was short-lived as of how quickly it happened. After I came to and realized what happened, my only thought was to make sure that ALL of my passengers were not seriously injured or harmed. I then was evacuated and had to focus on making sure that I myself was okay; to some degree, I am. When I got to the airport, I immediately started asking about the small family that had been seated in row 23, who had a lap child with them. Later on I found out that they seemed to be fine and if they noticed any changes they would also seek assistance. I was in the room next to [REDACTED] from 15C, who had been brought in with me. His wife was with him and seemed to be unharmed. They actually took the time to periodically check in on me and see how I was doing before they left. After I was finally discharged, I had been on the phone with [REDACTED] who was the supervisor on call that night, she explained to me what my next steps should be in terms of the situation at hand. She told me I needed a doctors note and that I would have to get an Uber/ Lyft to the other hospital where the other flight attendants were taken. So I ordered my Lyft and met up with them, then [REDACTED] [REDACTED] took immediate action. She helped me to figure out how I was going to get back to Charlotte and drove me to the airport where she ensured I was well taken care of. I from this point cannot speak highly enough of the people here in Knoxville. From the gate agents/ ticket agents/ TSA/ Inflight Service/ and so many more people have gone way farther than above and beyond for us. I have felt nothing but love and support from every single person I have encountered in this event, and can feel nothing but utter gratitude for everyone involved.

Operations:**Paramedics Met Aircraft:** Yes**Suggestions**

WARNING: The information in this document may be protected from disclosure under 49 U.S.C., section 40123 and 14 CFR part 193.

Report generated Thu, 13 Feb 2020 20:57 Z

Inflight Analyst Operation Report 11961

Overview:

Employee:**User Name:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Employee Number:** [REDACTED]**Job Title:** Flight Attendant**Organization:** PSA Airlines**Employee Base:** TYS - Knoxville, TN**FAA Certificate or Qualification Type:** Flight Attendant**Address:** [REDACTED]**City:** [REDACTED]**State:** [REDACTED]**Province:** Tennessee**Zip Code:** [REDACTED]**Country:** United States**Email Address:** [REDACTED]**Home Phone Number:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant in Charge**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Check Airman**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Pilot Flying**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Processing:****Status:** New

Can a deidentified version of this report be published in internal airline safety publications?: Yes

ID: [REDACTED]

Aware Date/Time: Fri, 07 Feb 2020 05:50 Z

Date/Time When Event Occurred: Fri, 07 Feb 2020 05:50 Z

Local Time When Event Occurred: 00:50

Viewer Accessible: No

Initial Notification Date/Time: Sat, 08 Feb 2020 21:48 Z

Submission Date/Time: Sat, 08 Feb 2020 21:48 Z

Source: Web Submission

Form Name: submission-form

Exclude this report from Scoreboard: No

Event: 1

Baseline Risk Assessment

Likelihood:

Severity:

Risk Factor:

Description

Aircraft Configuration:

Nickname: N610NN

Tail Number: N610NN

Aircraft Type: CRJ-900

Cabin Employee Information:

Position: DH

Primary Duties During Time of Event: Off-Duty FA

Cabin Events:

Cabin Lighting: Medium

Outside Lighting: Night

Turbulence: Severe

Flight Attendant Activities/Duties:

Cabin Preparations: Yes

Safety Related Duties: Description: FAs were performing Approach duties in respective cabins

Announcement/Briefing: Other

Flight Information:

Departure Airport, Runway and Gate: KCLT/CLT

Flight Number: 5634

Scheduled Arrival Airport, Runway and Gate: KTYS/TYS

Landing Airport, Runway and Gate: KTYS/TYS

Illness/Injury Event:

Cabin Crew: Incapacitation

Location Where Injury Occurred: Galley

Passenger: Injury**Narrative:**

Approximately 0050 on 02/07/2020: I was seated in 3D and the FAs had just played the approach announcement. Both were performing their duties for approach/landing. The AFT had just walked past me to collect cups from water service when we hit some moderate chop. Seconds later, the plane took a nose dive and started rocking back and forth and dropped altitude. Passengers screamed when they came up out of their seats. I saw the magazines from Row 1 come up into the air and land in the aisle. I was concerned about the FWD FA as I didn't see her come from the galley. I looked AFT and couldn't see the AFT FA. [REDACTED] Mainline pilot in 2A heard me undo my seat belt and I said I need to check on her. He and 1D jumped up because they saw the FWD FA [REDACTED] crawling on the galley floor to get to her jumpseat. By the time I got up there they were trying to get her in the js. I noticed she was in extreme pain and she told me she couldn't walk. I had [REDACTED] and 1D take her to 3D and I took over the flight. I got in the j/s and couldn't see the AFT FA ([REDACTED] Pax in 22D hit the call button. I got on the PA and said if you hit it in error please hit it again to turn it off but if you need medical attention please hit it again. She hit it again. We were still experiencing bumpy air and I hesitated to get up. This is when 2A said the FA seated next to you wants to know if you want her to go to the back. [REDACTED] was instructed to go to the back and look for the AFT FA, and either she or a pax yelled up front that the AFT was injured. I also told [REDACTED] before she takes the js to check on 22D. Darla interphoned me and said pax was having heart palpitation and asked if she could give her oxygen. I said yes. When the air smoothed out, I got on the PA and made an announcement "turn air vents on high and be sure seat belt was securely fastened low and tight across hips". Noticed [REDACTED] head dropping asked 2A to make sure she kept her eyes open and she was breathing because it looked like she was going in to shock. He asked me for ice and I reached into ice bin from j/s, tied it up and tossed into the aisle. Call from FD asking if everyone was okay and I informed [REDACTED] that both FAs were injured. He asked if we needed medics and I said yes. I got back on the PA and informed pax that if they were injured to please hit the call button so I would know who needed attention when we landed. With many call buttons illuminated I decided it was best to call the FD and ask for a lot of medics that we had at least 6-7 injuries. After taxi-in announcement, I told pax once we were parked at the gate to remain seated so I could assess injuries and determine who needed immediate medical attention. I walked through the cabin row by row looking for the injured pax and asked for a medical professional who identified herself in 16A. Asked her to assist Darla and tend to the heart pax. Darla informed me the infant in 23C hit her head on the PSU. Heart pax was crying and scared. These are the seat numbers of injured and description of injury: 23C Infant-two red bumps on high forehead, 22D-heart issues and panic, 21D-panic attack, 21F-mentioned sore knee/didn't feel right, 20 D or F-pax didn't realize

bump/bruise on crown of head and bleeding, 18 or 19 C-large man with heavy beard-was thrown from seat into OHB and landed in aisle for two minutes pax said. Appeared to have concussion as he didn't know how he got on this plane but recalled he boarded one in SC. [REDACTED] in 15C-had a bump on right forehead with two horizontal cuts/light bleeding. [REDACTED] told me her neck and shoulders were stiff. Very tall unidentified man deplaning with pax around him telling me he needs to be seen because he hit his head. Medics came on board and I told them to get [REDACTED] off the plane first as she could not walk and I noticed in the air that she was going in to shock. Asked medics if I needed to deplane uninjured and they said not yet they wanted to assess how many injuries and the type of injury. After [REDACTED] was taken off the a/c, I asked for injured pax to remain on board and uninjured to deplane per medics. This is when 22D (heart) began to really panic and I had to ask medic to get to her immediately. Pax instructed to take any seat. Once she was off we deplaned again and injured pax were tended to by medics and wheeled off the plane. [REDACTED] told me that pax told her to sit down because she hit the ceiling and left scuff marks from shoes on ceiling and pax made her sit down because she was still walking through asking if they were okay. After deplaning, we got all the bags off, and I heard one of the FAs was taken to a hospital near my house so I headed there to stay with her ([REDACTED]) and to also get myself checked out as I had lower back and hip pain. [REDACTED] was at UT hospital being treated. On-Call Supervisor was informed that I had their bags and where I would be so I could be sure they got their belongings. When [REDACTED] saw me she said please stay with me are you going to stay with me. [REDACTED] was transported to Blount Memorial and arrived at 0612 where [REDACTED] and I were and asked how she would get to hospital and she needed a flight home. [REDACTED] was unable to reach scheduling and not successful with a reservation. Once all 3 of us had releases, I drove [REDACTED] to the hospital and Supervisor [REDACTED] was having issues trying to reach scheduling but said she would keep working on it and get them both flights home. Once curbside at TYS I informed the porter the next FA I was bringing over could not walk. He told me that she would need an assistant as they couldn't lift her out of my car and put in wchr. I called [REDACTED] and got her on the second try to ask for TYS ground crew to assist [REDACTED] from the curb to gate.

Cause**Narrative:**

Severe turbulence

Detection**How Event Detected:****Self Awareness/Scan:** Yes**When Event Detected:****In-Flight:** Yes**Reaction**

Operations:**Paramedics Met Aircraft:** Yes**Suggestions**

WARNING: The information in this document may be protected from disclosure under 49 U.S.C., section 40123 and 14 CFR part 193.

Report generated Thu, 13 Feb 2020 20:58 Z

Inflight Analyst Operation Report 11994

Overview:

Employee:**User Name:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Employee Number:** [REDACTED]**Job Title:** Flight Attendant**Address:** [REDACTED]**City:** [REDACTED]**State:** [REDACTED]**Province:** Bradley County**Zip Code:** 37312**Country:** United States**Email Address:** [REDACTED]**Home Phone Number:** [REDACTED]**Work Phone Number:** [REDACTED]**Mobile Number:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Pilot**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Extra FA**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Processing:****Status:** New**Can a deidentified version of this report be published in**

internal airline safety publications?: Yes

ID: [REDACTED]

Date/Time When Event Occurred: Fri, 07 Feb 2020 01:00 Z

Viewer Accessible: No

Initial Notification Date/Time: Sun, 09 Feb 2020 17:48 Z

Submission Date/Time: Mon, 10 Feb 2020 00:14 Z

Source: Web Submission

Form Name: submission-form

Exclude this report from Scoreboard: No

Event: 1

Baseline Risk Assessment

Likelihood:

Severity:

Risk Factor:

Description

Aircraft Configuration:

Nickname: N610NN

Tail Number: N610NN

Aircraft Type: CRJ-900

Cabin Employee Information:

Primary Duties During Time of Event: Off-Duty FA

Cabin Events:

Cabin Lighting: Medium

Outside Lighting: Night

Turbulence: Severe

Flight Information:

Departure Airport, Runway and Gate: KCLT/CLT

Flight Number: 5634

Scheduled Arrival Airport, Runway and Gate: KTYS/TYS

Landing Airport, Runway and Gate: KTYS/TYS

Illness/Injury Event:

Cabin Crew: Incapacitation

Location Where Injury Occurred: Cabin

Passenger: Injury

Narrative:

I was non reviving on this flight and was seated in first class in 3F, next to a dead heading flight attendant ([REDACTED] in 3D. The flight attendants had just played the approach announcement and started their initial preparations for landing. All of a sudden, we hit severe turbulence. There were extreme changes in both altitude and attitude. It was severe enough that I am certain that if my seatbelt had not been fastened I would have been thrown out of my seat. The forward flight attendant ([REDACTED] [REDACTED] was in the galley and the

aft flight attendant () was somewhere in the main cabin. I couldn't see either flight attendant or the passengers behind me during the event. I could hear the scared passengers behind me scream as we hit the more severe bumps and small personal items were tossed around the cabin. Although it seemed longer at the time, I don't think the event lasted more than 30 seconds. As soon as the turbulence passed, () immediately went to check on the fwd flight attendant. She had hit her head and was shaken up. () sat her in her seat next to me, gave her some ice and assumed the fwd fa duties. () (fwd fa) had a visible knot on her forehead and she was complaining about pain in her ankles. She was visibly shaken up and said she was in pain. I tried to comfort her and help keep the ice on her ankles and and forehead. As () assessed the cabin, she realized that the aft flight attendant was injured as well. By this time we were getting very close to landing. I volunteered to take over the aft jumpseat and she agreed. I headed to the back and took the jumpseat. While I was there I assessed the condition of the passengers around me. The infant in 23 D/F had bumped her head and the woman in 22F was complaining of chest pains and difficulty breathing. She informed me that she had recently had cardiac surgery and had a pacemaker. I administered oxygen to her after we landed until the EMTs took over. As we were taxiing to the gate, the passenger in 22D told me that he was afraid he was beginning to have a panic attack. I relayed that information to () as she came to the back of the cabin to get a count of passenger injuries. I tried to keep him calm as I monitored the oxygen that was being administered to () the passenger in 23F (I didn't get her last name) until the EMTs arrived. After that, I assisted wherever I could. I helped one of the ramp agents use the aisle chair to get () (aft FA) and () (23F) off of the aircraft. Then I escorted a couple injured passengers from the jet bridge to a designated area in the terminal. I helped gather and sort personal belongings including those belonging to the injured flight attendants. I stayed with () and the pilots in the terminal while we made phone calls to determine where the injured attendants had been taken and what to do with their personal belongings. Then we walked to the employee parking lot together then parted ways.

Cause**Narrative:**

The incident was caused by severe unexpected turbulence.

Detection**Reaction****Operations:**

Paramedics Met Aircraft: Yes

Suggestions

WARNING: The information in this document may be protected from disclosure under 49 U.S.C., section 40123 and 14 CFR part 193.

Report generated Thu, 13 Feb 2020 20:59 Z

Flight Crew Analyst Operation Report 45491

Overview:

Employee:**User Name:** [REDACTED]**Salutation:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Employee Number:** [REDACTED]**Job Title:** Captain**Organization:** PSA Airlines**Employee Base:** CLT - Charlotte, NC**FAA Certificate or Qualification Number:** [REDACTED]**FAA Certificate or Qualification Type:** Airline Transport Pilot**Address:** [REDACTED]**City:** [REDACTED]

[REDACTED]

Province: USA**Zip Code:** [REDACTED]**Country:** United States**Email Address:** [REDACTED]**Home Phone Number:** [REDACTED]**Work Phone Number:** [REDACTED]**Other Employees:****Employee Duty:** Pilot Monitoring/Pilot Not Flying**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant in Charge**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** J [REDACTED]**Other Employees:****Employee Duty:** Flight Attendant**Employee Number:** [REDACTED]**First Name:** [REDACTED]**Last Name:** [REDACTED]**Other Employees:****Employee Duty:** Extra FA**Employee Number:** [REDACTED]**First Name:** [REDACTED]

Last Name: [REDACTED]**Processing:****Status:** New**Can a deidentified version of this report be published in internal airline safety publications?:** Yes**ID:** [REDACTED]**Aware Date/Time:** Fri, 07 Feb 2020 06:00 Z**Date/Time When Event Occurred:** Fri, 07 Feb 2020 06:00 Z**Local Time When Event Occurred:** 01:00**Viewer Accessible:** No**Initial Notification Date/Time:** Fri, 07 Feb 2020 08:38 Z**Submission Date/Time:** Fri, 07 Feb 2020 09:28 Z**End of Trip Date/Time:** Fri, 07 Feb 2020 06:20 Z**Source:** Web Submission**Form Name:** submission-form**Create both an ASAP and Incident report?:** No**Exclude this report from Scoreboard:** No**Event: 1****Baseline Risk Assessment****Likelihood:****Severity:****Risk Factor:****Description****ATC Information:****Name of ATC Facility:** ATLANTA CENTER**Aircraft Configuration:****Nickname:** N610NN**Tail Number:** N610NN**Aircraft Type:** CRJ-900**Flight Crew Employee Information:****Primary Duties During Time of Event:** Pilot Flying**Flight Information:****Departure Airport, Runway and Gate:** KCLT/CLT - 18C/36C - E24**Flight Number:** 5634**Time of Day:** Night**Scheduled Arrival Airport, Runway and Gate:** KTYS/TYS - 05R/23L**Landing Airport, Runway and Gate:** KTYS/TYS - 05R/23L - 12**Filed Altitude (MSL):** 22000**Illness/Injury Event:****Illness/Injury Event:** Yes**Narrative:**

On 02/07/2020, flight 5634 departed the gate in CLT after a four hour delay due to the severe weather in the area throughout the day. While loading passengers, I took a last minute look at the Nexrad Radar to check for anything convective along our route of flight in which I didn't see anything other than a little yellow and light green. I had briefed the passengers in my pre flight briefing that we could expect a few bumps in flight due to the weather that had passed through the area during the day. We departed 18C on the SID with the radars on to pick up any precipitation. We climbed up to FL220, and it was smooth flight. I left the seatbelt sign on for the entire flight. ATC reported to us that there was some light/moderate/heavy/extreme precipitation in our vicinity as I don't recall the exact reference of the clock hand they usually give us. Both of us had our radars on, and I had my tilt around 2.00 degrees, and the Captain had his around 0.7 from what I recall. We were not painting any sort of precipitation on our route. We were in clear air with clouds beneath us. Pilot monitoring got the in range report from the flight attendants. ATC gave us pilots discretion to 13,000. I dialed in 13,000, and we pointed at it. I delayed my descent a minute or two then started down. Descending through around FL190-200 I turned my tilt down to check a cloud deck I saw about 1 to 2 o'clock in which the radar didn't show any precipitation. I told the captain that we may hit a little turbulence so I was starting to slow back to 280kts. Seconds later we went into the cloud where we encountered extreme/severe turbulence where the autopilot kicked off and the nose pitched down pretty hard. I already had my hands on the control wheel before the autopilot kicked off so I reacted by reducing the power for the nose down attitude. We did not encounter any precipitation or ice while in the turbulence that I recall in the turbulence. When we came out of the clouds, we continued to get moderate turbulence in clear air at this time around 15,000 ft or so. The captain called back to check on the flight attendants, and a DH FA answered and stated we had injuries to both FA and passengers. We were less than 15 min out from our destination. We tried calling ops to start an ambulance but we did not get an answer. We had approach relay the information. An ACARS was sent to dispatch. They gave us a descent to 8,000 and then down to 5,000 where we landed. We taxied to the gate where EMS met us. After shutting down the plane, I went into the cabin to assist with helping passengers and the forward flight attendant. EMS responded and provided medical attention to passengers. I notified the on call chief pilot and inflight supervisor. I wrote up the airplane for the turbulence encounter along with use of the aft portable O2 bottle. This was Captain OE for me, and I was pilot flying.

Phase of Flight:**Flight Phase at Start of Event:** Descent**Weather:****Meteorological Conditions:** IMC**Weather Description:** CLEAR ABOVE A CLOUD DECK

Narrative:

Turbulence

Weather:**Turbulence:** Extreme**Detection****How Event Detected:****Flight Crew:** Yes**Self Awareness/Scan:** Yes**When Event Detected:****In-Flight:** Yes**Reaction****Action Taken:****Accepted:** Yes**Flight Crew:****Corrected Pitch/Power:** Yes**Flight Status after Event:****No Disruption:** Yes**Operations:****Paramedics Met Aircraft:** Yes**Suggestions****Narrative:**

The upset recovery training we do helped me out in this extreme turbulence encounter.

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Report generated Thu, 13 Feb 2020 20:39 Z

From: [Sailer, Christopher](#)
To: [Etcher Shawn](#)
Cc: [Hensellek, Karin](#)
Subject: RE: N610NN - Request
Date: Thursday, February 20, 2020 8:15:43 AM

[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Good Morning –

[REDACTED] was a deadheading Flight Attendant repositioning to TYS. She was not performing a line check.

Karin, Flight Safety Manager is back from vacation and will be continuing to work with you on the rest of your questions.

Thanks,

Christopher Sailer

Director of Safety
[REDACTED]

PSA Airlines
[REDACTED]
[REDACTED]
[REDACTED]

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From: Etcher Shawn [REDACTED]
Sent: Wednesday, February 19, 2020 2:49 PM
To: Sailer, Christopher [REDACTED]
Subject: RE: N610NN - Request

Reading the statements for the crew, was flight attendant [REDACTED] provided a line check to one or both flight attendants? Or was she deadheading to be repositioned or non-revving to TYS? The LCA wrote *"the dead-heading check flight attendant"*.

From: Sailer, Christopher [REDACTED]

Sent: Friday, February 14, 2020 2:39 PM

To: Etcher Shawn [REDACTED]

Subject: RE: N610NN - Request

[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Yes that would be great!

From: Etcher Shawn <[REDACTED]>

Sent: Friday, February 14, 2020 3:34 PM

To: Sailer, Christopher [REDACTED]

Subject: RE: N610NN - Request

I can send you our bulk transfer site if that would be easier for you? Let me know and I'll do it immediately.

Thanks again for all of your help

From: Sailer, Christopher <[REDACTED]>

Sent: Friday, February 14, 2020 2:32 PM

To: Etcher Shawn [REDACTED]

Subject: RE: N610NN - Request

[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Yes. We are still working on gathering everything you requested. I tried to send half of the items over to you yesterday but I believe it was blocked with the file size being too large. We will send some more information over to you shortly.

Thanks,

Christopher Sailer

Director of Safety
[REDACTED]

PSA Airlines
[REDACTED]
[REDACTED] CELL
[REDACTED]

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From: Etcher Shawn [REDACTED]

Sent: Friday, February 14, 2020 12:47 PM

To: Sailer, Christopher [REDACTED]

Subject: RE: N610NN - Request

Mr. Sailer

Just wanting to verify that you received my request? If it didn't go through before it is attached for your ease. If it did come through, nothing changed on it.

Thanks

Shawn

From: Sailer, Christopher [REDACTED]

Sent: Tuesday, February 11, 2020 4:55 PM

To: Etcher Shawn [REDACTED]

Cc: Lovell John [REDACTED]

Subject: RE: N610NN - Request

[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Good Evening –

As we discussed on the phone earlier this was an OE flight. Captain Kidder was the Check Airman providing OE.

Please send the requests all to me. I can be the single point of contact.

Thanks,

Christopher Sailer

Director of Safety
[REDACTED]

PSA Airlines
[REDACTED]
[REDACTED]
[REDACTED]

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From: Etcher Shawn [REDACTED]
Sent: Tuesday, February 11, 2020 10:30 AM
To: Sailer, Christopher [REDACTED]
Cc: Etcher Shawn [REDACTED]; Lovell John <[REDACTED]>
Subject: N610NN - Request

Good morning Mr. Sailer,

I am the operational factors investigator assigned to this event. I really appreciate you getting John Lovell the Pilot statements so quickly it has been very helpful so far. I do have one question about those, it appears that both statements reference each other as Captains, was this an OE flight?

Additionally, I am certain John has explained to you that we are conducting a turbulence study here at the NTSB to see if there is anything that can be done to minimize flight attendant/passenger injuries in the future. As part of that study we are doing a more detailed investigation into each turbulence event that occurs and that meets are accident criteria. As you know this event does. I will have a list of documents that I will be requesting but I wanted to make sure I send the request to the correct person. IF you would be so kind as to let me know who that individual would be I would greatly appreciate it.

As always if you have any questions please feel free to let me know my contact information is below.

Very Respectfully,

Shawn Etcher
Operational Factors – AS30
National Transportation Safety Board
Mobile: [REDACTED]
[REDACTED]
[REDACTED]