



National Transportation Safety Board Aviation Accident Final Report

Location:	Pittsburgh, PA	Accident Number:	ERA11CA046
Date & Time:	11/02/2010, 1900 EDT	Registration:	N454SW
Aircraft:	BOMBARDIER INC CL-600-2B19	Aircraft Damage:	Substantial
Defining Event:	Ground handling event	Injuries:	41 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

According to the operator, the airplane was parked at the gate preparing to be pushed back when the damage occurred. A ground crew worker had connected an air-starter cart to the airplane, and then determined that the air cart was not functioning properly. The worker attempted to pull the cart away from the airplane without disconnecting the hose, resulting in substantial damage to the skin panels on the left, lower side of the airplane's fuselage.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The ground crew's failure to detach the air-starter hose from the airplane before moving the cart away resulting in structural damage to a skin panel.

Findings

Personnel issues	Physical - Ground crew (Cause)
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Factual Information

History of Flight

Standing	Ground handling event (Defining event)
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Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	27, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last Medical Exam:	09/02/2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	05/29/2010
Flight Time:	5328 hours (Total, all aircraft), 3278 hours (Total, this make and model)		

Co-Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	35, Female
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last Medical Exam:	08/09/2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	10/11/2010
Flight Time:	5979 hours (Total, all aircraft), 3146 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BOMBARDIER INC	Registration:	N454SW
Model/Series:	CL-600-2B19	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	7749
Landing Gear Type:	Retractable - Tricycle	Seats:	55
Date/Type of Last Inspection:	10/31/2010, Continuous Airworthiness	Certified Max Gross Wt.:	53000 lbs
Time Since Last Inspection:		Engines:	2 Turbo Fan
Airframe Total Time:	20042 Hours	Engine Manufacturer:	GE
ELT:	C126 installed, not activated	Engine Model/Series:	CF34-3B1
Registered Owner:	WELLS FARGO BANK NORTHWEST N A TRUSTEE	Rated Power:	9140 lbs
Operator:	SkyWest Airlines	Air Carrier Operating Certificate:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	SWAI

Meteorological Information and Flight Plan

Observation Facility, Elevation:	PIT, 1203 ft msl	Observation Time:	1851 EDT
Distance from Accident Site:	0 Nautical Miles	Condition of Light:	Night
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Thin Broken / 11000 ft agl	Temperature/Dew Point:	8°C / -4°C
Lowest Ceiling:	Broken / 11000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	4 knots, 40°	Visibility (RVR):	
Altimeter Setting:	30.28 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Pittsburgh, PA (PIT)	Type of Flight Plan Filed:	IFR
Destination:	Minneapolis, MN (MSP)	Type of Clearance:	IFR
Departure Time:	EDT	Type of Airspace:	

Airport Information

Airport:	Pittsburgh International Airpor (PIT)	Runway Surface Type:	
Airport Elevation:	1203 ft	Runway Surface Condition:	
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Substantial
Passenger Injuries:	38 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	41 None		

Administrative Information

Investigator In Charge (IIC):	Jose Obregon	Adopted Date:	06/20/2011
Additional Participating Persons:	Gary Ankney; FAA/FSDO; Allegheny, PA Mike Eisenstat; SkyWest Airlines; St. George, UT		
Publish Date:	06/20/2011		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=77725		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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