



Aviation Investigation Final Report

Location:	Asheville, North Carolina	Accident Number:	DCA21LA226
Date & Time:	September 17, 2021, 13:40 Local	Registration:	N444ZW
Aircraft:	BOMBARDIER INC CL-600-2B19	Aircraft Damage:	Substantial
Defining Event:	Ground collision	Injuries:	51 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

According to the flight crew, after pushback they received instructions from the ground controller to hold their position due to a 30-minute delay before takeoff. While they were holding, a fuel truck began backing up in their direction without the assistance of marshallers. The captain attempted to get the drivers attention by flashing the airplane's landing lights. However, the fuel truck driver continued backing up and struck the airplane resulting in substantial damage to an area under the first officer's window. The captain immediately shut down the right engine and made a public address announcement for the passengers to remain seated. Post-accident inspection revealed a hole in the forward fuselage of the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The fuel truck driver backing up in the direction of the airplane without the use of marshallers.

Findings

Personnel issues	Incorrect action performance - Ground crew
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Factual Information

History of Flight

Prior to flight	Ground collision (Defining event)
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Pilot Information

Certificate:	Airline transport	Age:	47
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	June 15, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	4039 hours (Total, all aircraft), 1786 hours (Total, this make and model), 1688 hours (Pilot In Command, all aircraft), 226 hours (Last 90 days, all aircraft), 60 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Co-pilot Information

Certificate:	Airline transport; Flight instructor	Age:	23
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	July 27, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	1665 hours (Total, all aircraft), 427 hours (Total, this make and model), 1158 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 64 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Cabin crew Information

Certificate:		Age:	
Airplane Rating(s):		Seat Occupied:	Front
Other Aircraft Rating(s):		Restraint Used:	3-point
Instrument Rating(s):		Second Pilot Present:	
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	BOMBARDIER INC	Registration:	N444ZW
Model/Series:	CL-600-2B19	Aircraft Category:	Airplane
Year of Manufacture:	2003	Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	7788
Landing Gear Type:	Retractable - Tricycle	Seats:	53
Date/Type of Last Inspection:	September 15, 2021 Continuous airworthiness	Certified Max Gross Wt.:	53250 lbs
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:	38506 Hrs at time of accident	Engine Manufacturer:	GE
ELT:	C91A installed, not activated	Engine Model/Series:	CF34 SERIES
Registered Owner:	AIR WISCONSIN AIRLINES LLC	Rated Power:	9140 Lbs thrust
Operator:	AIR WISCONSIN AIRLINES LLC	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:	United Express	Operator Designator Code:	A6WA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear / 1700 ft AGL	Visibility	9 miles
Lowest Ceiling:	Overcast / 4200 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.25 inches Hg	Temperature/Dew Point:	22°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Asheville, NC (KAVL)	Type of Flight Plan Filed:	IFR
Destination:	Chicago, IL (KORD)	Type of Clearance:	IFR
Departure Time:	13:22 Local	Type of Airspace:	Class C

Airport Information

Airport:	ASHEVILLE RGNL AVL	Runway Surface Type:	
Airport Elevation:	2164 ft msl	Runway Surface Condition:	Wet
Runway Used:		IFR Approach:	Unknown
Runway Length/Width:		VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Substantial
Passenger Injuries:	48 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	51 None	Latitude, Longitude:	35.436199,-82.541802

Administrative Information

Investigator In Charge (IIC):	Hauf, Michael
Additional Participating Persons:	Chris White; Air Wisconsin Airlines; Milwaukee, WI Matthew Rigsby; FAA Office of Accident Investigation, AVP-100; Fort Worth, TX
Original Publish Date:	July 19, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=103922

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).