



National Transportation Safety Board Aviation Accident Final Report

Location:	Greenville, SC	Accident Number:	ATL02LA029
Date & Time:	01/02/2002, 2120 EST	Registration:	N262FE
Aircraft:	Boeing 727-200	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 121: Air Carrier - Non-scheduled		

Analysis

According to the Captain, during the first phase of pushback, everything appeared normal. The first and second officers were completing the engine start check and the airplane was being pushed back from the gate when the airplane came to a stop. The tug operator stated that during pushback, the airplane nose wheel hit a patch of ice. As he applies brakes to stop the tug, the airplane began to slide. Unable to stop the movement, the tug driver jumped from the tug to avoid getting caught between the tug and airplane. The tug came to rest lodged under the fuselage of the airplane creating a 10-inch by 14-inch hole in the underside of the fuselage breaking two stringers.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The tug driver's failure to maintain control of the airplane during pushback resulting in the tug colliding with the airplane. A factor was ice on the ramp.

Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: TAXI - PUSHBACK/TOW

Findings

1. (C) OBJECT - VEHICLE
2. (F) TERRAIN CONDITION - ICY
3. (C) AIRCRAFT CONTROL - NOT MAINTAINED - DRIVER OF VEHICLE

Factual Information

On January 2, 2002, at 2120 eastern standard time, a Boeing 727-200, N262FE, owned and operated by Federal Express, collided with an airport tug during pushback for takeoff at the Greenville-Spartanburg Airport in Greenville, South Carolina. The domestic cargo flight was operated under the provisions of Title 14 CFR Part 121 with an IFR flight plan. Instrument weather conditions prevailed at the time of the accident. The airline transport pilot and first and second officers were not injured nor was the tug driver, however the airplane received substantial damage.

According to the Captain, during the first phase of pushback, everything appeared normal. The first and second officers were completing the engine start check and the airplane was being pushed back from the gate when the airplane came to a stop. The tug operator stated that during pushback, the airplane nose wheel hit a patch of ice. As he applied brakes to stop the tug, the airplane began to slide. Unable to stop the movement, the tug driver jumped from the tug to avoid getting caught between the tug and airplane. The tug came to rest lodged under the fuselage of the airplane creating a 10-inch by 14-inch hole in the underside of the fuselage. The examination of the airframe revealed that two stringers on the bottom side were damaged. .

Witnesses stated that after deicing the airplane, the tug operator began to pushback the airplane. The parking area was clear of ice but the ramp was slick. The tug operator parked the airplane on the taxi line at a 90-degree angle from the tug and engaged the brakes. According to the operator, "due to the ice on the ramp, the momentum of the tug caused the tug to slide into the airplane."

Pilot Information

Certificate:	Airline Transport	Age:	48, Male
Airplane Rating(s):	Multi-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):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	10/01/2001
Occupational Pilot:		Last Flight Review or Equivalent:	12/08/2001
Flight Time:	1773 hours (Total, all aircraft), 1760 hours (Total, this make and model), 29 hours (Last 90 days, all aircraft)		

Co-Pilot Information

Certificate:	Airline Transport	Age:	32, Male
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):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	09/17/2001
Occupational Pilot:		Last Flight Review or Equivalent:	07/31/2001
Flight Time:	1691 hours (Total, all aircraft), 155 hours (Total, this make and model), 155 hours (Last 90 days, all aircraft)		

Flight Engineer Information

Certificate:	Flight Engineer	Age:	, Male
Airplane Rating(s):	None	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Unknown Unknown	Last FAA Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N262FE
Model/Series:	727-200	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	21624
Landing Gear Type:	Retractable - Tricycle	Seats:	5
Date/Type of Last Inspection:	12/21/2001, Continuous Airworthiness	Certified Max Gross Wt.:	95317 lbs
Time Since Last Inspection:	25 Hours	Engines:	3 Turbo Fan
Airframe Total Time:	44864 Hours at time of accident	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	JT8D-15QM
Registered Owner:	Fedex Express Corporation	Rated Power:	15500 lbs
Operator:	Fedex Express Corporation	Operating Certificate(s) Held:	Air Cargo; Flag carrier (121)
Operator Does Business As:	Federal Express	Operator Designator Code:	FDEA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night
Observation Facility, Elevation:	GSP, 964 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	2300 EST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Few	Visibility	1 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	-4° C / -4° C
Precipitation and Obscuration:			
Departure Point:	Greenville, SC (GSP)	Type of Flight Plan Filed:	IFR
Destination:	Memphis, TN (MEM)	Type of Clearance:	IFR
Departure Time:	2120 EST	Type of Airspace:	Class C

Airport Information

Airport:	Greer-Greenville Spartanburg (GSP)	Runway Surface Type:	Asphalt; Concrete
Airport Elevation:	964 ft	Runway Surface Condition:	Ice; Snow--wet; Wet
Runway Used:		IFR Approach:	Unknown
Runway Length/Width:		VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	34.885833, -82.217500

Administrative Information

Investigator In Charge (IIC):	Butch Wilson	Report Date:	07/25/2002
Additional Participating Persons:	Patrick A Teel; Federal Express; Memphis, TN		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsbt.gov/pubdms/ .		

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