
Collision with tug, Boeing 727-223, January 6, 1998

Micro-summary: This Boeing 727-223 collided with a tug.

Event Date: 1998-01-06 at 1210 EST


Investigative Body: National Transportation Safety Board (NTSB), USA


Investigative Body's Web Site: <http://www.nts.gov/>


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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: IAD98LA021		Aircraft Registration Number: N845AA	
		Occurrence Date: 01/06/1998		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place PHILADELPHIA		State PA	Zip Code 19153	Local Time 1210	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 727-223		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>On January 6, 1998, at 1210 eastern standard time, American Airlines Flight 2027, a Boeing 727-223, N845AA, sustained minor damage when it was struck by a ground tug while taxiing for takeoff at the Philadelphia International Airport, Philadelphia, Pennsylvania. The certificated airline transport captain, first officer, flight engineer, 4 flight attendants, and 107 passengers were not injured. The driver of the tug received serious injuries. Instrument meteorological conditions existed and a instrument flight plan was filed. The scheduled domestic flight was conducted under 14 CFR Part 121, destined for Dallas/Fort Worth, Texas.</p> <p>The pilot stated that after push back from the gate, they were taxiing to spot number 2 in the "non movement" area, when they felt an impact. The captain stated he thought the airplane had experienced a blown tire and neither he nor any of the cockpit crew saw the tug prior to impact. The Cockpit Voice Recorder was removed from the airplane and verified the pilot's statement.</p> <p>Federal Aviation Administration (FAA) Inspectors gathered witness statements, which indicated that the tug, pulling baggage carts, did not attempt to slow up or avoid the airplane. The FAA Inspectors stated that there were no skid marks left by the tug prior to the collision. When the airplane came to a stop, the tug was under the airplane's right main wheel mount, and one of the baggage carts being towed was impacted by the left main wheel mount. The damage to the airplane was confined to the leading edge of the left wing root and to the bottom of the fuselage. The tug was found at the scene with the engine running and the transmission engaged.</p> <p>The FAA Inspectors, with assistance from the Philadelphia police, examined the tug and reviewed the "Work History" and "Direct Labor and Parts" forms for the tug. No pertinent problems were written on the forms, and the vehicle's brakes and steering were found in good operating condition. The driver's training record was reviewed and current, with his last physical completed October 14, 1997. The driver was on vacation from December 23, 1997, through January 5, 1998. After a 2 week vacation, this was the tug driver's first day back at work. He had been operating this tug since 0430, without any reported mechanical problems.</p> <p>The emergency room doctor stated that the tug driver had lost 11 pints of blood from the injuries sustained in the accident. No symptoms of any medical events which would have caused the driver to lose consciousness were discovered. Tests results for drugs and alcohol were negative. Two nights after the accident while recovering from his injuries, the tug driver called his supervisor and relayed, "that while driving the tug, he had dropped his water container, and was reaching down for it. That was the last thing that he could remember."</p> <p>An assessment team from American Airlines, along with FAA Inspectors from the Philadelphia Flight Standards District Office, documented the damage sustained by the airplane. On January 8, 1998, the airplane was released to American Airlines and on January 12, 1998, after an examination of the damaged tug and its maintenance logbook, the tug was released.</p>					
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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: IAD98LA021				
		Occurrence Date: 01/06/1998				
		Occurrence Type: Accident				
Landing Facility/Approach Information						
Airport Name PHILADELPHIA INTL		Airport ID: PHL	Airport Elevation 22 Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:						
Runway Surface Condition:						
Type Instrument Approach: NONE						
VFR Approach/Landing: None						
Aircraft Information						
Aircraft Manufacturer Boeing		Model/Series 727-223		Serial Number 20986		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 159	Certified Max Gross Wt. 178000 LBS		Number of Engines: 3	
Engine Type: Turbo Fan		Engine Manufacturer: P&W		Model/Series: JT8D-9	Rated Power: 14500 LBS	
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness		Date of Last Inspection 11/1997	Time Since Last Inspection 378 Hours		Airframe Total Time 58983 Hours	
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? No		ELT Operated?		ELT Aided in Locating Accident Site?		
Owner/Operator Information						
Registered Aircraft Owner AMERICAN AIRLINES		Street Address 4333 AMON CARTER BLVD				
		City FORT WORTH		State TX	Zip Code 76155	
Operator of Aircraft Same as Reg'd Aircraft Owner		Street Address Same as Reg'd Aircraft Owner				
		City		State	Zip Code	
Operator Does Business As:				Operator Designator Code: AALA		
- Type of U.S. Certificate(s) Held:						
Air Carrier Operating Certificate(s): Flag Carrier/Domestic						
Operating Certificate:			Operator Certificate:			
Regulation Flight Conducted Under: Part 121: Air Carrier						
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger Only						

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: IAD98LA021
	Occurrence Date: 01/06/1998
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 59
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 07/1997
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	12400	5646								
Pilot In Command(PIC)										
Instructor										
Last 90 Days		85								
Last 30 Days		5								
Last 24 Hours		3								

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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Flight Plan/Itinerary

Type of Flight Plan Filed: IFR

Departure Point Same as Accident/Incident Location	State	Airport Identifier PHL	Departure Time 1158	Time Zone EST
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Destination DALLAS/FT WORTH	State TX	Airport Identifier DFW	
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Type of Clearance: IFR

Type of Airspace: Class B

Weather Information

Source of Briefing:
Company

Method of Briefing:

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Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
PHL	1151	EST	22 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Unknown			0 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Overcast		300 Ft. AGL	Visibility: 0.25 SM	Altimeter: 30.00	"Hg
Temperature: 9 °C	Dew Point: 9 °C	Wind Direction: Variable		Density Altitude: Ft.	
Wind Speed: Calm	Gusts:	Weather Conditions at Accident Site: Instrument Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility: Fog					
Type of Precipitation: None					

Accident Information

Aircraft Damage: Minor	Aircraft Fire: None	Aircraft Explosion: None
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Classification: U.S. Registered/U.S. Soil

- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer				1	1
Cabin Attendants				4	4
Other Crew					
Passengers				107	107
- TOTAL ABOARD -				114	114
Other Ground	0	1	0		1
- GRAND TOTAL -	0	1	0	114	115

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: IAD98LA021

Occurrence Date: 01/06/1998

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

JIM CAIN

Additional Persons Participating in This Accident/Incident Investigation:

JOSEPH RADOSKY
FAA
PHILADELPHIA, PA

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FT. WORTH, TX 76155