
Injury while closing cargo door, Boeing 727, January 13, 1999

Micro-summary: A ground handler was injured while attempting to close the cargo door of a Boeing 727.


Event Date: 1999-01-13 at 1655 EST

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

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

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		NTSB ID: NYC99LA235		Aircraft Registration Number: N785AT	
		Occurrence Date: 01/13/1999		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place NEW YORK		State NY	Zip Code 11371	Local Time 1655	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 727-200		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 13, 1999, about 1655 Eastern Standard Time, a ground support handler was seriously injured when a cargo door strut on a Boeing 727-200, N785AT, crushed her hand. At the time, the airplane, which was operating as American Trans Air flight 751/752, was parked at a gate at La Guardia International Airport (LGA), New York, New York. The captain, first officer, second officer, 4 flight attendants, and 153 passengers were uninjured. The flight was preparing to depart, operating under 14 CFR Part 121.</p> <p>According to a written statement by the handler, her supervisor told her to close one of the cargo doors. The handler wrote:</p> <p>"The baggage compartment doors are held wide open above and perpendicular to the fuselage of the 727 by an expandable metal bar. The expandable metal bar is connected to the inside and left hand side (looking at the bar from the inside) of the door and it latches into a notch on the right hand side (looking at it from the outside) of the fuselage of the airplane.</p> <p>I attempted to close the aft baggage compartment door, but when I tried to undo the latch, the bar violently popped out of the notch. The door came crashing down at high velocities, the bar swung into the belly of the aircraft with my hand. With that, the bar penetrating, crushing and tearing the left palm between the pointer finger and thumb, also injuring arm/shoulder/neck."</p> <p>The accident was not reported by the airline. It was reported to the Safety Board by the injured handler in August 1999, and confirmed in September 1999. According to the airline's director of safety, the handler had worked for Signature Flight Support, which provided the ground support to the airline at La Guardia. The airline was unaware of the accident because Signature had not reported it.</p> <p>In a letter to the airline dated August 18, 1999, the handler's supervisor wrote that the handler had reported to work on the day of the accident after recuperating for a couple of days, from a lower back injury. She was going to be on light duty, and was instructed to only wing walk and assist with radio communications. The supervisor also stated that the handler was signed off to work on the ramp and on the Boeing 727, and that she had "received on-the-job training for this particular task."</p> <p>In another statement dated January 13, 1999, the supervisor stated that when he asked the handler what happened, she said that the door came down on her while she was closing it. "She was holding the bar that braces the door up with her right hand. It probably came down on her too hard, and she couldn't handle it...."</p> <p>In an undated statement, a witness wrote that he saw the handler pull out the bar that secured the baggage door when it was it open. "She lost control of the bar, turn[ed] side way[s] to brace from</p>					
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National Transportation Safety Board

FACTUAL REPORT

AVIATION

NTSB ID: NYC99LA235

Occurrence Date: 01/13/1999

Occurrence Type: Accident

Narrative (Continued)

the impact of the aircraft door. The door hit her and she fell to the ground...."

The Boeing 727 maintenance manual excerpt provided by the airline stated that the aft cargo door was a plug-type, outward-upward opening door. The door was equipped with two balance mechanisms to counterbalance the weight of the door to facilitate door opening. The forward balance mechanism had a rotary snubber to prevent the door from opening or closing with excessive force. A support strut was also present, to secure each door in the fully open position.


The maintenance manual also stated that the cargo door would have been closed "by removing the support strut from the fuselage fitting, telescoping the strut and stowing it in the slotted bracket by the door....The cargo door then swings down...."


The ground service manual in use included the following procedure: "Pull cargo door down using Support Strut."

According to the airline's maintenance records, a discrepancy was written up on the cargo door, dated December 25, 1998. It stated: "Aft cargo door heavy to open." The corrective action was: "Found fwd counterbalance hinge loose from mount. Resecured counterbalance hinge as required. Ops check good at this time."

On February 7, 1999, the following discrepancy was written: "Aft cargo door heavy when opening." The following day, the corrective action was: "Adjusted cable tension on fwd balance as required...."

The airline also reported that on the day of the accident, a daily service check was performed on the airplane. Part of the service check required a visual inspection of the cargo bay area, which required the mechanic to open, and then secure, the cargo bay door.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: NYC99LA235			
		Occurrence Date: 01/13/1999			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name LA GUARDIA	Airport ID: LGA	Airport Elevation Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:					
Runway Surface Condition:					
Type Instrument Approach:					
VFR Approach/Landing:					
Aircraft Information					
Aircraft Manufacturer Boeing		Model/Series 727-200		Serial Number 21691	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 0	Certified Max Gross Wt. 194800 LBS	Number of Engines: 3		
Engine Type: Turbo Fan	Engine Manufacturer:	Model/Series:	Rated Power:		
- Aircraft Inspection Information					
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 01/1999	Time Since Last Inspection Hours	Airframe Total Time 51818 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed?	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner COMERICA LEASING CORP		Street Address 29201 TELEGRAPH RD, FLOOR 2			
		City SOUTHFIELD	State MI	Zip Code 48034	
Operator of Aircraft AMERICAN TRANS AIR		Street Address 7337 WEST WASHINGTON STREET			
		City INDIANAPOLIS	State IN	Zip Code 46251	
Operator Does Business As:			Operator Designator Code: AMTR		
- 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					
FACTUAL REPORT - AVIATION					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: NYC99LA235
	Occurrence Date: 01/13/1999
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 49
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number:
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Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft?	Current Biennial Flight Review?
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Medical Cert.: Unknown	Medical Cert. Status: Unknown	Date of Last Medical Exam:
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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										
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Seatbelt Used?	Shoulder Harness Used?	Toxicology Performed?	Second Pilot? Yes
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Flight Plan/Itinerary

Type of Flight Plan Filed: Unknown

Departure Point Same as Accident/Incident Location	State	Airport Identifier LGA	Departure Time 0000	Time Zone
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Destination Local Flight	State	Airport Identifier	
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Type of Clearance:

Type of Airspace:

Weather Information

Source of Briefing:


Method of Briefing:

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: NYC99LA235
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	Occurrence Type: Accident

Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
LGA	1651	EST	22 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			2000 Ft. AGL	Condition of Light: Dusk	
Lowest Ceiling: Overcast		3600 Ft. AGL		Visibility: 9 SM	Altimeter: 30.00 "Hg
Temperature: -2 °C	Dew Point: -7 °C	Wind Direction: 20		Density Altitude: Ft.	
Wind Speed: 18	Gusts: 21	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information		
Aircraft Damage: None	Aircraft Fire: None	Aircraft Explosion: None

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				153	153
- TOTAL ABOARD -				160	160
Other Ground	0	1	0		1
- GRAND TOTAL -	0	1	0	160	161

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	Occurrence Date: 01/13/1999	
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Administrative Information

Investigator-In-Charge (IIC)

PAUL R. COX

Additional Persons Participating in This Accident/Incident Investigation:

NONE