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## Ground collision between a McDonnell Douglas MD-88 and Boeing 727, March 24, 2000

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**Micro-summary:** This MD-88 collided with a Boeing 727 on pushback.

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**Event Date:** 2000-03-24 at 1420 EST


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


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


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1. Accident reports can be and sometimes are revised. Be sure to consult the investigative agency for the latest version before basing anything significant on content (e.g., thesis, research, etc).
  2. Readers are advised that each report is a glimpse of events at specific points in time. While broad themes permeate the causal events leading up to crashes, and we can learn from those, the specific regulatory and technological environments can and do change. ***Your company's flight operations manual is the final authority as to the safe operation of your aircraft!***
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		NTSB ID: NYC00IA100A		Aircraft Registration Number: N944DL	
		Occurrence Date: 03/24/2000		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place BOSTON		State MA	Zip Code 02128	Local Time 1420	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer McDonnell Douglas		Model/Series MD-88		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On March 24, 2000, about 1420 Eastern Standard Time, a Boeing 727-247, N297WA, operated by Delta Air Lines as flight 1865, was struck by a McDonnell-Douglas MD-88, N944DL, operated by Delta Air Lines as flight 1857, at Logan International Airport, Boston, Massachusetts. Both airplanes received minor damage, and there were no injuries to the 202 occupants of either airplane, and the 4 ground personnel conducting the pushback of the MD-88. Visual meteorological conditions prevailed, and instrument flight rules (IFR) flight plans had been filed, for the two flights which were conducted under 14 CFR Part 121.</p> <p>The Boeing 727 was parked at an adjacent gate with the jetway attached. Passenger loading was in progress.</p> <p>The MD-88 was being pushed back for departure. The pushback crew consisted of two wing walkers, a walker by the nose, and the tug driver. As the airplane was pushed back, the tail was turned toward the Boeing 727. The MD-88 was then pulled forward a short distance, and pushed back again to make a change in direction. During the second rearward push, the right elevator of the MD-88 made contact with the rudder tab on the upper rudder of the Boeing 727.</p> <p>The airplanes were separated and the MD-88 was returned to the gate where the passengers deplaned through the jetway.</p> <p>According to statements received from DAL, the three ground walkers all signaled the tug driver to stop. According to the statement from the tug driver:</p> <p>"...I did not want to jam on the brakes and bring him to a hard stop, so I tried to ease him to a comfortable stop...."</p> <p>The damage on the Boeing 727 consisted of a tear in the fiberglass skin of the upper rudder tab. The upper rudder tab was replaced and the airplane was returned to service.</p> <p>The damage on the MD-88 consisted of a four-inch long dent in the trailing edge of right side elevator anti-float tab. The airplane was ferried to Atlanta for repair with the damaged unit still in place.</p>					
FACTUAL REPORT - AVIATION					
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 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: NYC00IA100A			
		Occurrence Date: 03/24/2000			
		Occurrence Type: Incident			
<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
LOGAN INT'L AIRPORT	BOS	20 Ft. MSL	0		
Runway Surface Type:					
Runway Surface Condition: Dry					
Type Instrument Approach: NONE					
VFR Approach/Landing: None					
<b>Aircraft Information</b>					
Aircraft Manufacturer		Model/Series		Serial Number	
McDonnell Douglas		MD-88		49817	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 149	Certified Max Gross Wt.	160500 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	P&W	JT8D-219	21000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	03/2000	Hours	Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner		Street Address			
DELTA AIR LINES		HARTSFIELD ATLANTA INTL ARPT			
		City	State	Zip Code	
		ATLANTA	GA	30320	
Operator of Aircraft		Street Address			
Same as Reg'd Aircraft Owner		Same as Reg'd Aircraft Owner			
		City	State	Zip Code	
Operator Does Business As:			Operator Designator Code: DALA		
- 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/Cargo					
FACTUAL REPORT - AVIATION					

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: NYC001A100A
	Occurrence Date: 03/24/2000
	Occurrence Type: Incident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 52
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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; Single-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: 11/1999
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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	13000	5979								
Pilot In Command(PIC)										
Instructor										
Last 90 Days		209								
Last 30 Days										
Last 24 Hours										

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 BOS	Departure Time 1420	Time Zone EST
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Destination ATLANTA	State GA	Airport Identifier ATL	
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Type of Clearance: None

Type of Airspace:

**Weather Information**

Source of Briefing: Company

Method of Briefing:

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: NYC001A100A
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<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
BOS	1454	EST	20 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Clear			0 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None		0 Ft. AGL		Visibility: 10 SM	Altimeter: 30.00 "Hg
Temperature: 10 °C	Dew Point: 1 °C	Wind Direction: 110		Density Altitude: Ft.	
Wind Speed: 11	Gusts:	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					

<b>Accident Information</b>		
Aircraft Damage: Minor	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					
Cabin Attendants				4	4
Other Crew					
Passengers				81	81
- TOTAL ABOARD -				87	87
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	87	87

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: NYC00IA100A

Occurrence Date: 03/24/2000

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

ROBERT L. HANCOCK

Additional Persons Participating in This Accident/Incident Investigation:

JACK DONAHUE  
FAA FSDO  
BOSTON, MA

JOHN POTTHAST  
DELTA AIR LINES  
ATLANTA, GA