
Ground collision between a McDonnell Douglas DC-9-32 and tug, Dulles, January 20, 2002

Micro-summary: This McDonnell Douglas DC-9-32 struck a gear tug while taxiing.


Event Date: 2002-01-20 at 0715 EST

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

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

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		NTSB ID: NYC02LA056		Aircraft Registration Number: N837AT	
		Occurrence Date: 01/20/2002		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Dulles	State VA	Zip Code 20166	Local Time 0715	Time Zone EST	
Airport Proximity: On Airport		Distance From Landing Facility: 0		Direction From Airport: 0	
Aircraft Information Summary					
Aircraft Manufacturer McDonnell Douglas		Model/Series DC-9-32		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 January 20, 2002, at 0715 eastern standard time, a McDonnell Douglas DC-9-32, N837AT, operated by Air Tran Airways as flight 67, was substantially damaged during pushback at Washington Dulles International Airport, Dulles, Virginia. There were no injuries to the 2 certificated airline transport pilots, 3 flight attendants, or 61 passengers. Visual meteorological conditions prevailed. An instrument flight rules (IFR) flight plan had been filed, for the flight that was conducted under 14 CFR Part 121.</p> <p>The flight was destined for Atlanta, Georgia. According to the captain, the ramp was covered with snow and ice, and their gate position required a pushback with a nose swing of about 120 degrees. The airplane had an inoperative APU, and he elected to start both engines at the gate prior to pushback because a single engine crossbleed start would require an N1 of 80 percent on the operative engine. After both engines were started, the pushback was initiated. As the tug neared a 90 degree position to the right side of the nose of the airplane, it started to move forward, and then stopped when it struck the tug, after which the captain set the brakes. The captain added that he had not applied the brakes until after the airplane came to rest.</p> <p>According to the diagrams on the Air Tran Airways safety report filled out by the captain, the position of the tug was near 90 degrees to the right of the nose of the airplane when the airplane started to move forward.</p> <p>According to an interview conducted with the tug driver by the Metropolitan Washington Airports Authority, Airport Operations Division, the tug driver reported that he had conducted two earlier pushback with no problems. The tug driver added that with both engines running on the airplane, the airplane felt heavier during the push.</p> <p>During the pushback, there were two wing walkers, the tug driver, and an additional walker near the nose of the airplane, who was using a headset to remain in communications with the flight crew.</p> <p>The people who conducted the pushback were contract employees who had been trained in accordance with Air Tran Airways general maintenance manual (GMM). There was no specific requirement to use a headset. However, the Air Tran Airways GMM did state that headset communication was the primary method of communications during pushback and tow. It further stated, "If an interphone/headset is to be used, the tractor operator will man the headset...." The investigation revealed that the tug driver did not wear the headset because the chord had broken, and had been repaired several times, which shortened its overall length.</p> <p>The tug driver reported that he had already pushed back two airplanes that morning with no problems, and that the initial part of the push was without incident. As the airplane entered an area where the ramp was icy, he turned the nose of the airplane to the west. The nosewheels on the airplane started slipping, and he was unable to communicate this to the cockpit crew. He stopped</p>					
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National Transportation Safety Board

FACTUAL REPORT

AVIATION

NTSB ID: NYC02LA056

Occurrence Date: 01/20/2002

Occurrence Type: Accident

Narrative (Continued)

the tug and the airplane slid into the tug.

The walker on the interphone to the cockpit reported that he was not looking at the airplane when it began to slip. When he became aware that the airplane was slipping, there was insufficient time to tell the flight crew to set the brakes. He did not make any transmission to the pilots prior to impact.

The ramp was reported as icy, and some people reported difficulty in walking.


The tug used for pushback was a Hough T-225, rated to push an airplane up to 225,000 pounds. The tires on the tug were not equipped with chains. The ramp had not been sanded.


Within the preceding 12 hours, the airport had reported periods of freezing rain, followed by light snow.

A toxicological report on the tug driver was negative for drugs or alcohol.

Neither Air Tran Airways, nor the contract operator had any specific training directed to the problems that could be encountered with pushing airplanes on icy ramps, or winter operations in general.

Damage to the airplane consisted of a hole in the right side of the fuselage, located about 3 feet below the bottom of the forward, right side cabin door, and about 4 feet behind the trailing edge of the door. Internally, there was damage to the longerons.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: NYC02LA056				
		Occurrence Date: 01/20/2002				
		Occurrence Type: Accident				
Landing Facility/Approach Information						
Airport Name Washington Dulles		Airport ID: IAD	Airport Elevation 313 Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type: Unknown						
Runway Surface Condition: Unknown						
Type Instrument Approach: NONE						
VFR Approach/Landing: None						
Aircraft Information						
Aircraft Manufacturer McDonnell Douglas		Model/Series DC-9-32		Serial Number 45774		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 106	Certified Max Gross Wt. 109000 LBS		Number of Engines: 2	
Engine Type: Turbo Fan		Engine Manufacturer: Pratt & Whitney		Model/Series: JT8D-9	Rated Power: 14500 LBS	
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness		Date of Last Inspection 03/2000	Time Since Last Inspection Hours		Airframe Total Time 67712 Hours	
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? No		ELT Operated? No		ELT Aided in Locating Accident Site? No		
Owner/Operator Information						
Registered Aircraft Owner Air Trans Airways		Street Address 9955 Air Trans blvd				
		City Orlando		State FL	Zip Code 32824	
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: ZZDA		
- 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: NYC02LA056
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	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 50
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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; Flight Instructor; Commercial; Flight Engineer

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

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s):

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review? 09/2001
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Medical Cert.: Class 1	Medical Cert. Status: None	Date of Last Medical Exam: 08/2001
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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	12500	7000	750	11750	4000	625	20			
Pilot In Command(PIC)	6000	3500	650	5350	2500					
Instructor	550		500	50	5					
Last 90 Days	240	240		240	80	10				
Last 30 Days	80	80		80	25	3				
Last 24 Hours	5	5		5	2	6				

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	Departure Time 0715	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: Unknown

Weather Information

Source of Briefing: Company

Method of Briefing: In Person

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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
IAD	0651	EST	313 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Clear			Ft. AGL	Condition of Light: Dusk	
Lowest Ceiling: None		Ft. AGL	Visibility: 10	SM	Altimeter: 30.11 "Hg
Temperature: -1 °C	Dew Point: -5 °C	Wind Direction: 360		Density Altitude: Ft.	
Wind Speed: 8	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV)	SM	Intensity of Precipitation:		
Restrictions to Visibility:					
Type of Precipitation: None					

Accident Information		
Aircraft Damage: Substantial	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				3	3
Other Crew					
Passengers				61	61
- TOTAL ABOARD -				66	66
Other Ground					
- GRAND TOTAL -				66	66

National Transportation Safety Board

FACTUAL REPORT

AVIATION



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Occurrence Date: 01/20/2002

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Robert L. Hancock

Additional Persons Participating in This Accident/Incident Investigation:

Bill Bergmann
Aviation Safety Inspector
Federal Aviation Administration
Dulles, VA

J P Dagon
Director of Safety
Airtrans
Orlando, FL