

National Transportation Safety Board
Washington, DC 20594

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Brief of Accident

Adopted 05/30/2006

DCA05MA070
File No. 20084 06/07/2005 Washington, DC Aircraft Reg No. N803MD Time (Local): 06:41 EDT

Make/Model:	Embraer / 170	Fatal	0	Serious	0	Minor/None	2
Engine Make/Model:	General Electric / CF34-8E	Crew	0	0	0	0	0
Aircraft Damage:	Minor	Pass	0	0	0	0	0
Number of Engines:	2	Other	1	0	0	0	0
Operating Certificate(s):	Flag Carrier/Domestic						
Name of Carrier:	USAirways						
Type of Flight Operation:	Scheduled; Domestic; Passenger Only						
Reg. Flight Conducted Under:	Part 121: Air Carrier						

Last Depart. Point:	Same as Accident/Incident Location	Condition of Light:	
Destination:		Weather Info Src:	Weather Observation Facility
Airport Proximity:	On Airport/Airstrip	Basic Weather:	Visual Conditions
Airport Name:	Washington Reagan National	Lowest Ceiling:	25000 Ft. AGL, Overcast
Runway Identification:	NA	Visibility:	9.00 SM
Runway Length/Width (Ft):	Unk/Nr	Wind Dir/Speed:	260 / 004 Kts
Runway Surface:		Temperature (°C):	20
Runway Surface Condition:		Precip/Obscuration:	

Pilot-in-Command	Age:	Flight Time (Hours)
Certificate(s)/Rating(s)		Total All Aircraft: Unk/Nr
		Last 90 Days: Unk/Nr
		Total Make/Model: Unk/Nr
Instrument Ratings		Total Instrument Time: Unk/Nr

While the flight crew was preparing the aircraft for a revenue flight at jetway 23 at Washington Reagan National Airport, Washington, DC., an NMC-Wollard mobile belt baggage loader was driven under, and struck, a USAirways Express Embraer EMB-170 jet. The driver (fleet service agent) of the belt loader was fatally injured during the accident sequence, while the aircraft and belt loader received minor damage. The initial examination of the belt loader revealed no external damage other than damage to the steering wheel, steering column, and the operator's seat. The upper portion of the steering wheel had struck the underside of the airplane during the impact sequence, and was bent into an oval shape to the rear and in a downward direction. There was no evidence of breaks or kinks in the hydraulic lines leading to the steering actuator. The single eyewitness to the accident stated that he saw the fleet service agent approach the aircraft from the right rear, turn to the right around a fuel cart located off the right wing, and try to stop the belt loader. He speculated that her foot may have slipped off the brake pedal at that time. An accelerator pedal and a brake pedal are located in the footwell of the belt loader. Both are metal, and the 2 3/4 by 4-inch brake pedal has raised holes in it to improve foot traction. The right edge of the pedal also has a 5/8-inch raised lip. The accelerator pedal is curved, and is 3 1/2 inches by 2 inches. The pedals are 4 inches apart laterally. The vehicle's brake system was examined using a skid test. The NMC-Wollard TC-888 belt loader is a four-wheeled, gasoline powered, single-seat vehicle equipped with an open driver's compartment and a 297.5-inch continuous moving belt assembly. The belt assembly can pivot, via hydraulics, at its rear end to facilitate different aircraft baggage door sill heights. When the belt assembly is lowered completely, the vehicle is 47.5 inches high, measured from the top of the steering wheel to the ground. The weight of the vehicle is 5,900 pounds. All four wheel assemblies achieved a locked condition when the brakes were fully applied. Also, the vehicle's maximum sustained speed of 18 miles per hour (mph) was measured utilizing a police speed-detecting laser. An examination

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of the vehicle's engine and drive components revealed no damage or defects. The throttle return springs were firm and provided good return. The accelerator foot pedal was not damaged, and was able to move without any restrictions or objects impeding its movement. The driver (fleet service agent) was hired by USAirways on May 9, 2005, almost one month prior to the accident, and had never driven a belt loader before joining that company.

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Occurrence #1: MISCELLANEOUS/OTHER
Phase of Operation: STANDING - ENGINE(S) NOT OPERATING

Findings

1. AIRPORT EQUIPMENT,GROUND SUPPORT - OTHER
2. (C) EQUIPMENT,OTHER - GROUND PERSONNEL
3. (C) LACK OF EXPERIENCE - GROUND PERSONNEL

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.

The inexperience of the driver (fleet service agent) in the operation of a belt loader, which resulted in the belt loader being driven under, and colliding with, the airplane.