		NTSB ID: DCA03MA022		Aircraft Registration Number: N233YV	
		Occurrence Date: 01/08/2003		Most Critical Injury: Fatal	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Charlotte		State NC	Zip Code	Local Time 0849	Time Zone EST
Airport Proximity: On Airport/Airstrip		Distance From Landing Facility:			
Aircraft Information Summary					
Aircraft Manufacturer Beech		Model/Series 1900D		Type of Aircraft Airplane	
Revenue 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>The Safety Board's full report is available at http://www.nts.gov/publicctn/publicctn.htm. The Aircraft Accident Report number is NTSB/AAR-04/01.</p> <p>On January 8, 2003, about 0847:28 eastern standard time, Air Midwest (doing business as US Airways Express) flight 5481, a Raytheon (Beechcraft) 1900D, N233YV, crashed shortly after takeoff from runway 18R at Charlotte-Douglas International Airport (CLT), Charlotte, North Carolina. The 2 flight crewmembers and 19 passengers aboard the airplane were killed, 1 person on the ground received minor injuries, and the airplane was destroyed by impact forces and a postcrash fire. Flight 5481 was a regularly scheduled passenger flight to Greenville-Spartanburg International Airport (GSP), Greer, South Carolina, and was operating under the provisions of 14 Code of Federal Regulations Part 121 on an instrument flight rules flight plan. Visual meteorological conditions prevailed at the time of the accident.</p> <p>The accident airplane had been flown from the Tri-State/Milton J. Ferguson Field, Huntington, West Virginia (HTS), to CLT on January 7, 2003 (the day before the accident). Air Midwest records indicated that the accident pilots flew the accident airplane on six flight legs that day. The first officer (the nonflying pilot) of the flight from HTS to CLT told the accident first officer, when handing off the airplane, that "everything was normal" and "it was a good flying airplane."</p> <p>The accident pilots began their trip sequence about 1340 and ended their trip sequence at CLT about 2045. Another flight crew met the accident airplane for a trip that night from CLT to Lynchburg Regional Airport/Preston Glenn Field, Lynchburg, Virginia. That flight crew flew the accident airplane back to CLT the next morning (January 8th), arriving at 0715. According to postaccident interviews, neither the captain nor the first officer of those two flight legs noticed anything unusual about the airplane.</p> <p>On January 8, 2003, the accident flight crew was scheduled to fly two flight legs on a 1-day trip sequence-CLT to GSP and GSP to Raleigh-Durham International Airport (RDU), Raleigh-Durham, North Carolina-and then to travel on duty as passengers from RDU to CLT. An Air Midwest pilot saw the captain in the gate area about 0745 and the first officer about 0800.</p> <p>The dispatch release for flight 5481 showed that a maximum of 32 bags was allowed on the flight. One of the two ramp agents working flight 5481 stated, in a postaccident interview, that 23 bags had been checked and that 8 bags were carried on the airplane. The ramp agent stated that two of the checked bags were heavy, with an estimated weight of between 70 and 80 pounds. The ramp agent also stated that he told the captain that some of the bags were heavy, although they were not marked as such. According to the ramp agent, the captain indicated that the bags were fine because a child would be on board, which would allow for the extra baggage weight. The ramp agent estimated that the forward cargo compartment was about 98 percent full by volume.</p>					
FACTUAL REPORT - AVIATION					
					Page 1

National Transportation Safety Board

FACTUAL REPORT

AVIATION

NTSB ID: DCA03MA022

Occurrence Date: 01/08/2003

Occurrence Type: Accident

Narrative (Continued)

Cockpit voice recorder (CVR) information early in the recording indicated that the flight crew was completing the preflight paperwork regarding the airplane's weight and balance. Air Midwest records indicated that flight 5481 departed the gate on time about 0830. The captain was the flying pilot, and the first officer was the nonflying pilot.

Flight data recorder (FDR) data indicated that, beginning about 0835:16, the flight crew performed a control check of the elevators. The pitch control position parameter, which measures the position of the control column, recorded values from 15° airplane nose up (ANU) to 16.5° airplane nose down (AND). These values corresponded to elevator positions from full ANU to 7° AND. About 0837:20, the CVR recorded the first officer contacting the CLT Air Traffic Control Tower (ATCT) ground controller and informing him that flight 5481 was ready to taxi. The ground controller instructed the flight crew to taxi to runway 18R.

About 0846:18, the tower (local) controller cleared flight 5481 for takeoff and instructed the flight crew to turn right to a heading of 230° after takeoff. About 0846:35, the captain asked the first officer to set the takeoff power, and the first officer stated that the power had been set.

About 0846:48, the airplane's airspeed was above 102 knots, and the elevator position was 7° AND. About 3 seconds later, the elevator position was 1° AND, and the pitch attitude of the airplane began to increase. After 0846:53, the pitch trim started moving AND, and, about 3 seconds later, the captain called for the landing gear to be retracted. About 0846:57, the elevator position returned to 7° AND, and, about 2 seconds later, the CVR recorded the sound of the landing gear retracting.

About 0847:02, the first officer stated, "wuh," and the captain stated, "oh." About 0847:03, the captain stated, "help me." At that point, the airplane was about 90 feet above ground level, and FDR data showed that the airplane's pitch attitude was 20° ANU and airspeed was 139 knots. About 0847:04, the CVR recorded the captain asking, "you got it?" and FDR data indicated that the flight crew was forcefully commanding AND. During the next 8 seconds, the CVR recorded multiple statements and sounds from both flight crewmembers associated with their efforts to push the airplane's nose down. Also, about 0847:09, the CVR recorded a change in engine/propeller noise and, about 1 second later, the beginning of a sound similar to the stall warning horn.

About 0847:13, the FDR recorded a maximum pitch attitude of 54° ANU. About 0847:16, the captain radioed the ATCT and stated, "we have an emergency for Air [Midwest] fifty four eighty one," and the CVR recorded the end of the sound similar to the stall warning horn. About 0847:18, the airplane's pitch attitude decreased through 0°, and the elevator position began to move ANU. By 0847:19, the airplane was about 1,150 feet above ground level, and the FDR recorded a maximum left roll of 127° and a minimum airspeed of 31 knots. About 1 second later, the FDR recorded a pitch attitude of 42° AND.

About 0847:21, the captain stated, "pull the power back," the elevator position reached full ANU, and the airplane's pitch attitude was 39° AND. At 0847:21.7, the CVR recorded the beginning of a sound similar to the stall warning horn, which continued to the end of the recording. About 0847:22, the airplane's roll attitude stabilized at about 20° left wing down; the pitch attitude began to increase; and the elevator position moved in the AND direction, reaching about 8° ANU. About 1 second later, the elevator position began moving in the ANU direction. About 0847:24 the airplane rolled right through wings level, and the pitch attitude increased to about 5° AND.

About 0847:26, the FDR recorded a maximum right roll of 68° and a maximum vertical acceleration of 1.9 Gs. About the same time, the captain stated, "oh my god ahh," and the first officer stated something similar to, "uh uh god ahh [expletive]." The CVR recording ended at 0847:28.1. The FDR's last recorded pitch attitude was 47° AND; roll attitude was 66° to the right; and pitch control position was 19.2° ANU, which corresponded to an elevator position of full ANU.

The airplane struck a US Airways maintenance hangar on CLT property and came to rest about

National Transportation Safety Board

FACTUAL REPORT

AVIATION




NTSB ID: DCA03MA022


Occurrence Date: 01/08/2003

Occurrence Type: Accident

Narrative (Continued)

1,650 feet east of the runway 18R centerline and about 7,600 feet beyond the runway 18R threshold. ATCT controllers heard an emergency locator transmitter signal beginning about 0847:29. The accident occurred at 35° 12' 25" north latitude and 80° 56' 46.85" west longitude during daylight hours.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DCA03MA022			
		Occurrence Date: 01/08/2003			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
Charlotte-Douglas Internationa	CLT	748 Ft. MSL	18R	10000	150
Runway Surface Type: Concrete					
Runway Surface Condition: Dry					
Approach/Arrival Flown: NONE					
VFR Approach/Landing: None					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
Beech		1900D		UE-233	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Amateur Built Acft? No	Number of Seats: 19	Certified Max Gross Wt. LBS		Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Prop	Pratt & Whitney Canada	Pt6A-67D			
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	01/2003	Hours	15003 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed?/Type Yes /	ELT Operated? Yes	ELT Aided in Locating Accident Site? No			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
Air Midwest		2203 Air Cargo Rd			
		City	State	Zip Code	
		Wichita	KS	67209	
Operator of Aircraft		Street Address			
AIR MIDWEST INC		City	State	Zip Code	
Operator Does Business As: US Airways Express			Operator Designator Code: AMWA		
- 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: DCA03MA022
	Occurrence Date: 01/08/2003
	Occurrence Type: Accident

First Pilot Information

Name	City	State	Date of Birth	Age 25
------	------	-------	---------------	-----------

Sex: F	Seat Occupied: Left	Occupational Pilot?	Certificate Number:
--------	---------------------	---------------------	---------------------

Certificate(s): Airline Transport; Flight Instructor; Commercial; Private

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

Rotorcraft/Glider/LTA: None

Instrument Rating(s):

Instructor Rating(s):

Current Biennial Flight Review?

Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 11/2002
------------------------	--	------------------------------------

- 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	2790	1100								
Pilot In Command(PIC)										
Instructor										
Instruction Received										
Last 90 Days		134								
Last 30 Days		32								
Last 24 Hours		6								

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? Yes	Second Pilot? Yes
--------------------	----------------------------	---------------------------	-------------------

Flight Plan/Itinerary

Type of Flight Plan Filed: IFR	
--------------------------------	--

Departure Point	State	Airport Identifier	Departure Time	Time Zone
Same as Accident/Incident Location		CLT	0849	


Destination	State	Airport Identifier	
Greenville-Spar	NC	GSP	

Type of Clearance: None

Type of Airspace:

Weather Information

Source of Wx Information:

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: DCA03MA022
	Occurrence Date: 01/08/2003
	Occurrence Type: Accident


Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
clt	0751	EST	Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition: Partial Obscuration			10000 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Broken		25000 Ft. AGL	Visibility: 10	SM	Altimeter: 29.75 "Hg
Temperature: 3 °C	Dew Point: -7 °C	Weather Conditions at Accident Site: Visual Conditions			
Wind Direction: 260	Wind Speed: 6	Wind Gusts:			
Visibility (RVR): Ft.	Visibility (RVV): SM				
Precip and/or Obscuration:					

Accident Information

Aircraft Damage: Destroyed	Aircraft Fire: Ground	Aircraft Explosion: None
----------------------------	-----------------------	--------------------------

- 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					
Other Crew					
Passengers	19				19
- TOTAL ABOARD -	21				21
Other Ground			1		1
- GRAND TOTAL -	21		1		22

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: DCA03MA022
	Occurrence Date: 01/08/2003
	Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Lorenda Ward

Additional Persons Participating in This Accident/Incident Investigation:

Robert Drake
Federal Aviation Administration
Washington, DC

Jim Aiken
Air Midwest
Wichita, KS

Gary Sneary
Raytheon Aerospace/Vertex Aerospace LLC/
Madison, MS

Robert Ramey
Raytheon Aircraft
Wichita, KS

Dan Sciccio
ALPA
Pennelville, NY

Jay Hiles
IAM/now with the FAA

Brian Peterson
SMART Inc.
Edgewater, FL

Tom McCreary
Hartzell Propeller
Piqua, OH

Gary Parham
NATCA
Newnan, GA

Steven Ring
NATCA
Ocala, FL

Denis Rivard
TSB
Hull, Quebec K1A 1K8,

Rudy Quevedo
IAM
New Milford, NJ