		NTSB ID: ATL04FA118		Aircraft Registration Number: N4550S	
		Occurrence Date: 05/16/2004		Most Critical Injury: Fatal	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Morrisville		State NC	Zip Code 27560	Local Time 2116	Time Zone EDT
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility: 0.75			
Aircraft Information Summary					
Aircraft Manufacturer Beech		Model/Series A36		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>*** Note: NTSB investigators either traveled in support of this investigation or conducted a significant amount of investigative work without any travel, and used data obtained from various sources to prepare this aircraft accident report. ***</p> <p>This report was modified on July 17, 2007.</p> <p>HISTORY OF FLIGHT</p> <p>On May 16, 2004, at 2116 eastern daylight time a Beech A36, N4550S, registered to FCA Inc., and operated by a private pilot, collided with powerlines and the ground during a forced landing following a reported loss of engine power in Morrisville, North Carolina. The personal flight operated under the provisions of Title 14 CFR Part 91 with no flight plan filed. Visual weather conditions prevailed at the time of the accident. The private pilot, the sole occupant, received fatal injuries and the airplane sustained substantial damage. The flight departed Wilmington International Airport, Wilmington, North Carolina, on May 16, 2004, at 2030.</p> <p>According to the passengers, the flight departed Daytona Beach International Airport the evening of May 16, 2004 enroute to Wilmington International Airport, where the passengers were to deplane. A passenger recalled the pilot performing a visual inspection of the airplane, checking the fuel tanks and verifying they were full before taking off from Daytona Beach. Two passengers stated that the flight from Daytona Beach to Wilmington was approximately two and a half hours long. Upon arriving in Wilmington, the pilot did not shut down the engine, but deplaned the passengers and continued the flight to Raleigh-Durham International Airport.</p> <p>According to Raleigh control tower, the pilot established radio contact and was provided flight following service for the flight. When the flight arrived within range of the Raleigh-Durham International Airport, the pilot was given radar assistance to the final approach course for runway 23L. A review of radar data showed that when the flight was about 1.37 miles from the runway, the airplane was about 800 feet. At the same time the pilot reported to the tower controller that he had a problem. Seconds later, the pilot reported that his engine had failed. This was the last radio transmission from the pilot. The airport's crash fire rescue was dispatched to the general area of the downed airplane.</p> <p>PERSONNEL INFORMATION</p> <p>Review of information on file with the FAA Airman's Certification Division, Oklahoma City, Oklahoma, revealed that the airman held a private pilot certificate with the airplane single engine land rating. The date of issue for the certificate was December 19, 1994. Review of records on file with the FAA revealed the pilot held a third-class medical certificate issued on September 3, 2002 with the limitation that the pilot must have available glasses for near vision. The pilot indicated on his application for the medical certificate that he had accumulated 815 total flight hours. The pilot's logbook was not located for examination.</p>					
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National Transportation Safety Board

## FACTUAL REPORT

AVIATION

NTSB ID: ATLO4FA118

Occurrence Date: 05/16/2004

Occurrence Type: Accident

## Narrative (Continued)

## AIRCRAFT INFORMATION

The aircraft was a single engine, 1975 Beech A36. Review of maintenance records revealed the last annual inspection was conducted on July 11, 2003 and the airframe total time was 1,161 hours. Refueling records on file at Air Wilmington Inc., Wilmington, North Carolina revealed that the airplane was fueled on May 12, 2004 with 14.3 gallons of fuel. Records on file with Executive Flightline, Daytona Beach, Florida revealed that the airplane received an oil change and 44.8 gallons of fuel on May 13, 2004. The tachometer time recorded during the oil change was 1,399.7 hours. At the time of the accident the tachometer time was 1403.30.

## METEOROLOGICAL INFORMATION

The weather reporting station was at the Raleigh-Durham International Airport in Raleigh-Durham, North Carolina. The 2115 surface weather observation was: winds variable and calm, visibility 7 miles, cloud condition clear, temperature 19-degrees Celsius, dew point 19-degrees Celsius and altimeter 30.27 Hg. Visual meteorological conditions prevailed at the time of the accident.

## WRECKAGE AND IMPACT INFORMATION


Examination of the accident site revealed that wreckage debris was scattered over an area 45 feet wide and 125 feet long. At the time of the accident the airport property reported utility outage. There were two broken power lines located along the wreckage path at the accident site. The main wreckage was located inverted in a creek 4,800 feet on an extended centerline on the approach side for runway 23L. Further examination revealed that the left outboard wing panel was torn from the wing assembly, and the right outboard wing panel attached but deflected aft. Traces (unmeasurable quantities) of fuel was seen flowing from the severed fuel lines at the wing roots when the airplane was lifted from the accident site. The fuel selector was found on the right tank position.

The engine assembly was attached to the airframe as the airplane rested inverted in the creek. The propeller and engine assemblies were partially submerged in the water. The cockpit and forward portion of the passenger cabin were also submerged in the creek water. The left side of the cockpit was crushed in an upward direction and the structural support material was deformed about 45 degrees up. The outboard wing panels were torn from the airframe and were within the immediate vicinity of the main wreckage. Further examination of the main wreckage revealed that both main and nose gear were in the extended positions. The main wreckage was supported on the north shore of the creek by a four - inch tree. The empennage and tail cone of the airframe rested inverted on the north shore of the creek bed.

Examination of the wreckage showed that all components of the airplane which are necessary for flight were located along the debris path. Examination of the flight control system showed no evidence of precrash failure or malfunction. All separation points within the cables was consistent with overstress separation.

The engine was mounted on an engine test stand at an aircraft salvage yard and a substitute electric fuel pump was installed between the fuel supply and the engine. The engine was started and allowed to idle. When the substitute electric fuel pump was turned off the engine shutdown. The engine was restarted and operated to 2,000 RPM with the electric fuel pump on. The right magneto would not ground during magneto tests. The engine was shutdown and the engine driven fuel pump and right magneto were removed from the engine. The engine driven fuel pump was found to contain foreign contamination at the inlet. The debris was removed and the pump was reinstalled on the engine. The right magneto was found to have water contamination in the cap. This was removed and the magneto was reinstalled on the engine. The electric fuel pump from the airframe of N4550S was installed between the fuel supply and the engine. The engine was started and allowed to idle. The engine continued to idle when the electric fuel pump was turned off. The engine was operated to 2,100 RPM with no evidence of failure or malfunction. The right magneto would not ground when switched off. The engine driven fuel pump and right magneto were removed from the engine for further testing.

Testing of the right magneto under NTSB supervision at the manufacturer's facility showed the magneto operated normally.

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## Narrative (Continued)


Testing of the engine driven fuel pump under NTSB supervision at the manufacturer's facility showed during initial startup a flow of fuel was observed to exit the outlet and vapor return fittings. After several seconds of operation, the flow from the vapor return fitting ceased. The pump operated normally. The pump, without any adjustments, was then installed on a similar model engine as N4550S in a test stand at the manufacturer's facility. The test engine was started and the pump operated normally through the full range of engine power without assistance from an electric fuel pump.


## MEDICAL AND PATHOLOGICAL INFORMATION

The Office of the Chief Medical Examiner, Chapel Hill, North Carolina conducted the postmortem examination of the pilot on May 18, 2004. The cause of death was multiple blunt force trauma. The FAA Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma performed postmortem toxicology of specimens from the pilot. The FAA's Forensic Toxicology Fatal Accident Report revealed no carbon monoxide or cyanide detected in blood, and no ethanol detected in urine. There was 0.2 (ug/ml, ug/g) amphetamine detected in blood, 5.992 (ug/ml, ug/g) amphetamine detected in urine, no phenylpropanolamine detected in blood, phenylpropanolamine detected in urine, and quinine detected in both blood and urine.

## ADDITIONAL INFORMATION

The components retained by NTSB for further testing were released to Harry Brooks, a representative of the aircraft's insurance company, on September 27, 2006.

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: ATL04FA118			
		Occurrence Date: 05/16/2004			
		Occurrence Type: Accident			
<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
Raleigh-Durham International	RDU	437 Ft. MSL	23L	7500	150
Runway Surface Type: Concrete					
Runway Surface Condition: Dry					
Approach/Arrival Flown: NONE					
VFR Approach/Landing: Full Stop					
<b>Aircraft Information</b>					
Aircraft Manufacturer		Model/Series		Serial Number	
Beech		A36		E735	
Airworthiness Certificate(s): Normal; Utility					
Landing Gear Type: Retractable - Tricycle					
Amateur Built Acft? No	Number of Seats: 6	Certified Max Gross Wt.	3600 LBS	Number of Engines: 1	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Reciprocating	Continental	IO-520	300 HP		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Annual	07/2003	240 Hours	1161 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed?/Type Yes /	ELT Operated? No	ELT Aided in Locating Accident Site? No			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner		Street Address			
FCA Inc.		5805 Departure Drive Suite A			
		City	State	Zip Code	
		Raleigh	NC	27616	
Operator of Aircraft		Street Address			
Robert G. Snyder		5805 Departure Drive Suite A			
		City	State	Zip Code	
		Raleigh	NC	27616	
Operator Does Business As:			Operator Designator Code:		
- Type of U.S. Certificate(s) Held: None					
Air Carrier Operating Certificate(s):					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 91: General Aviation					
Type of Flight Operation Conducted: Personal					

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: ATL04FA118
	Occurrence Date: 05/16/2004
	Occurrence Type: Accident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 53
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Sex: M	Seat Occupied: Right	Occupational Pilot? Unknown	Certificate Number: On File
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Certificate(s): Private

Airplane Rating(s): Single-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): None

Instructor Rating(s): None

Current Biennial Flight Review?

Medical Cert.: Class 3	Medical Cert. Status: With Waivers/Limitations	Date of Last Medical Exam: 03/2002
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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	815									
Pilot In Command(PIC)										
Instructor										
Instruction Received										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? Yes	Second Pilot? No
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**Flight Plan/Itinerary**

Type of Flight Plan Filed: None

Departure Point Wilmington	State NC	Airport Identifier ILM	Departure Time 1945	Time Zone EDT
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Destination Raleigh-Durham	State NC	Airport Identifier RDU	
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Type of Clearance: VFR

Type of Airspace:

**Weather Information**

Source of Wx Information:  
No record of briefing

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: ATL04FA118
	Occurrence Date: 05/16/2004
	Occurrence Type: Accident

<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
RDU	0115	UTC	437 Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition: Clear				Ft. AGL	Condition of Light: Night/Dark
Lowest Ceiling:		Ft. AGL	Visibility: 7	SM	Altimeter: 30.27 "Hg
Temperature: 19 °C	Dew Point: 19 °C	Weather Conditions at Accident Site: Visual Conditions			
Wind Direction: Variable		Wind Speed: Calm		Wind Gusts:	
Visibility (RVR): Ft.		Visibility (RVV) SM			
Precip and/or Obscuration:					

<b>Accident Information</b>		
Aircraft Damage: Substantial	Aircraft Fire: None	Aircraft Explosion: None

- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot	1				1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -	1				1
Other Ground					
- GRAND TOTAL -	1				1

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: ATL04FA118

Occurrence Date: 05/16/2004

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Phillip Powell

Additional Persons Participating in This Accident/Incident Investigation:

Lynda Falcon  
Greensboro FSDO  
Greensboro, NC