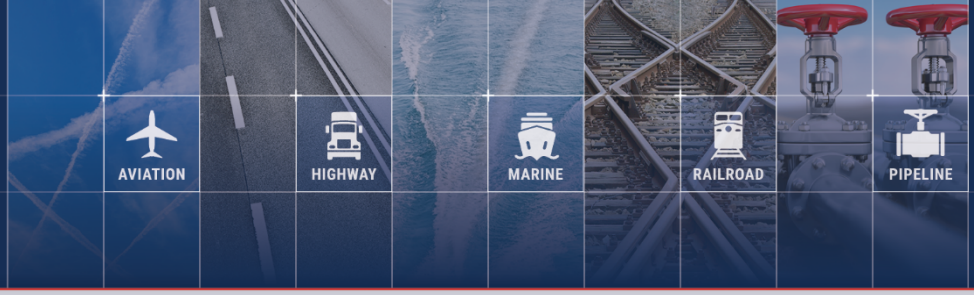

Aviation Investigation Final Report

Location:	ATLANTA, Georgia	**Accident Number:**	ATL95FA012
Date & Time:	November 7, 1994, 11:55 Local	**Registration:**	N1566X
Aircraft:	BEECH A36	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation		

Analysis

UPON ARRIVING WITHIN RANGE OF HIS DESTINATION AIRPORT, THE PILOT REPORTED A COMPLETE LOSS OF ENGINE POWER. HE SELECTED A FORCED LANDING AREA AND ATTEMPTED A LANDING. THE AIRPLANE COLLIDED WITH A STAND OF TREES AND CAME TO REST ON A FENCE, 120 FEET WEST OF THE TREES. DURING THE WRECKAGE EXAMINATION, AT THE ACCIDENT SITE, ONLY A FEW OUNCES OF FUEL WERE RECOVERED FROM THE FUEL SYSTEM. THE FUNCTIONAL CHECK OF THE ENGINE FAILED TO DISCLOSE A MECHANICAL MALFUNCTION OR COMPONENT FAILURE. IT WAS DETERMINED THAT THE AIRPLANE DEPARTED WITH 80 GALLONS OF FUEL, AND FLEW 3.75 HOURS BEFORE THE ENGINE QUIT. ACCORDING TO THE AIRCRAFT PERFORMANCE CHARTS, FUEL ENDURANCE AT FULL THROTTLE RANGED BETWEEN 3.6 HOURS AND 4.3 HOURS WITH FULL FUEL (NO FUEL CONSERVATION). DUE TO INJURIES RECEIVED, THE PILOT COULD NOT RECALL ANY OF THE DETAILS OF THE FLIGHT, OR IF HE EMPLOYED FUEL CONSERVATION MEASURES DURING THE FLIGHT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S INADEQUATE MANAGEMENT OF THE FUEL SUPPLY WHICH RESULTED IN FUEL EXHAUSTION AND A COMPLETE LOSS OF ENGINE POWER.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: APPROACH

Findings
1. FLUID,FUEL - EXHAUSTION
2. (C) FUEL MANAGEMENT - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings
3. OBJECT - TREE(S)

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

HISTORY OF FLIGHT

On November 7, 1994, at 1155 eastern standard time, a Beech A36, N1566X, collided with trees while attempting an emergency landing in Atlanta, Georgia. The business flight operated under the provisions of 14 CFR Part 91, with an instrument flight plan. Visual weather conditions prevailed at the time of the accident. The airplane was substantially damaged, and the pilot was seriously injured. The flight departed Kansas City, Missouri, at 0810 eastern standard time.

At 0545, the pilot of N1566X filed an Instrument Flight Plan from Downtown Airport in Kansas City, Missouri, to Dekalb- Peachtree Airport(PDK), Atlanta, Georgia, through GTE Control Direct User Access Terminal System (DUATS) Services. The pilot proposed a 0645 departure time. At 0659, the pilot radioed Kansas City ground control and requested an instrument flight clearance to PDK. The pilot was issued an instrument clearance with an expected cruise altitude of 7000 feet. At 0709, the flight was cleared for takeoff on runway 19. After the departure from Kansas City, air traffic handling to PDK was routine.

At 1134, the flight was cleared to cross 35 miles Northwest Of PDK Airport at 5000 feet; the pilot was also given the current altimeter setting. The pilot acknowledged the instructions. At 1137, the pilot established contact with approach control and was told to expect a visual approach to runway 2R. The flight was cleared direct to PDK. At 1147, the flight was cleared to 4000 feet.

At 1154:24, the pilot of N1566X radioed that he had a problem. Approach requested the nature of the problem, and the pilot replied that the engine was not developing power. The pilot was cleared to any runway at PDK, but the pilot replied that he's "not going to make it that far". The pilot also reported that he had the airport in sight, but again stated that he still could not make it. The pilot selected an open field (golf course) for the emergency landing. According to the Air Traffic Controller at Dekalb-Peachtree Airport, N1566X was four miles west of the airport when the pilot reported a loss of engine power, and his intention to attempt a forced landing in a field. The airplane collided with a stand of trees as the pilot maneuvered for the forced landing.

PERSONNEL INFORMATION

Information on the pilot is included in this report at the data field labeled "First Pilot Information". A review of the pilot's flight logs disclosed that he had completed a flight check, with a flight instructor for high performance complex airplanes. The instructor stated that the pilot was competent to act as Pilot in command.

AIRCRAFT INFORMATION

Information on the airplane is included in this report under the data field labeled "Aircraft Information". N1566X was equipped with an 80 gallon fuel system of which 74 gallons were usable. According to the fixed base operator, the a/c was topped off with 52 gallons of 100 low load aviation fuel. The line personnel stated that fuel flowed out of the filler neck and over the wings. The pilot could not recall or confirm the fuel level in each tank prior to departing Kansas City.

WRECKAGE AND IMPACT INFORMATION

Aircraft wreckage and other debris were scattered over an area 120 feet long and 50 feet wide. There was freshly disturbed dirt 75 feet west of the freshly cut trees. The wreckage examination disclosed that the wing assemblies were deflected aft from their normally installed positions. Other airframe components were located in the immediate vicinity of the main wreckage. The engine and propeller assemblies were attached to the airframe. The cockpit area sustained impact deformation. The wreckage was subsequently transported to a facility where a functional engine check was accomplished. During the field examination of the airframe, a few ounces of fuel were recovered from the gascolator assembly; no other fuel was recovered from the fuel system. The field examination of the aircraft failed to disclose a component failure or a system malfunction.

A second engine run was completed, and fuel consumption data was recovered for examination. The engine run determined that the fuel burn rate was within specified limits (see attached engine run report.

ADDITIONAL INFORMATION

Examination of the GTE DUATS Flight Plan revealed that the pilot received a computer readout of Navigational data for the flight. The computer readout included time and distance information for each leg of the flight. The data printout also included total fuel consumption for the flight (55 gallons), time enroute (3.41 hours), total distance (619 nm). The printout data did not include fuel conservation methods. During a telephone conversation the pilot, he could not recall if fuel conservation was used during the flight. According to the aircraft profile performance charts, fuel endurance at full throttle range between 3.6 hours and 4.3 hours with full fuel(74 gallons usable) on the low side of the rich/lean curves (see attached endurance performance charts). According to a note on the endurance profile charts, fuel required for climb to cruise, normal taxi, and 45 minutes of reserve fuel has been included in the performance curve.

During a telephone conversation with the pilot, the pilot stated that due to the injuries received during the accident, he could not recall any of the events of the flight and the subsequent accident.

The aircraft wreckage was released to:

Mr. Harry Brooks (Insurance Adjustor) P.O. Box 888525 Atlanta, Georgia 303056

Pilot Information

Certificate:	Private	**Age:**	43,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	April 14, 1993
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	346 hours (Total, all aircraft), 2 hours (Total, this make and model), 304 hours (Pilot In Command, all aircraft), 52 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	**Registration:**	N1566X
Model/Series:	A36 A36	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	E-2475
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	July 28, 1990 100 hour	**Certified Max Gross Wt.:**	3650 lbs
Time Since Last Inspection:	80 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1720 Hrs	**Engine Manufacturer:**	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-550-B
Registered Owner:	GARY CROSSLEY FORD	**Rated Power:**	300 Horsepower
Operator:	YOCUM, WILLIAM L.	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	PDK ,1002 ft msl	**Distance from Accident Site:**	4 Nautical Miles
Observation Time:	12:02 Local	**Direction from Accident Site:**	90°
Lowest Cloud Condition:	Scattered / 4000 ft AGL	**Visibility**	60 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	70°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	22°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	KANSAS CITY , MO (MKC)	**Type of Flight Plan Filed:**	IFR
Destination:	(PDK)	**Type of Clearance:**	IFR
Departure Time:	07:10 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	DEKALB-PEACHTREE PDK	**Runway Surface Type:**	Asphalt
Airport Elevation:	1002 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	2L	**IFR Approach:**	None
Runway Length/Width:	3744 ft / 150 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	33.860004,-84.41983(est)

Administrative Information

Investigator In Charge (IIC):	Powell, Phillip
Additional Participating Persons:	ALBERT R MARTIN; COLLEGE PARK , GA
Original Publish Date:	June 29, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=3460