Aviation Investigation Final Report

Location:	WISE, Virginia	**Accident Number:**	NYC95FA123
Date & Time:	May 25, 1995, 07:15 Local	**Registration:**	N9672Y
Aircraft:	BEECH 95-A55	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation		

Analysis

THE AIRPLANE WAS RECEIVING AN ANNUAL INSPECTION WHEN IT WAS RETURNED TO FLIGHT STATUS FOR A CHARTER FLIGHT, WITHOUT A MAINTENANCE RELEASE OR LOG BOOK SIGN OFF ON THE MAINTENANCE RECEIVED. WITNESSES SAW THE AIRPLANE DEPART WITH BOTH ENGINES OPERATING NORMALLY, AND THEN THE AIRPLANE TURNED AND ROLLED RIGHT, AND DESCENDED. IT IMPACTED THE GROUND, AND BURNED. THE LANDING GEAR AND WING FLAPS WERE RETRACTED, THE COCKPIT WAS DESTROYED, AND BOTH ENGINES RECEIVED FIRE DAMAGE. THE RIGHT PROPELLER WAS FOUND FEATHERED; HOWEVER, NO IDENTIFIABLE PROBLEM WAS FOUND WITH THE ENGINE. THE COMPANY DID NOT HAVE AN AIR-TAXI CERTIFICATE, AND THE PILOT HELD A PRIVATE PILOT CERTIFICATE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the pilot to maintain airspeed, after the right engine lost power, which resulted in an uncontrolled descent and collision with the ground.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. 1 ENGINE
2. REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
3. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
4. (C) AIRSPEED(VMC) - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
5. TERRAIN CONDITION - OPEN FIELD

Factual Information

HISTORY OF FLIGHT

On May 25, 1995, at 0715 eastern daylight time, a Beech 95-A55, N9672Y, was destroyed when it struck terrain after takeoff from the Lonesome Pine Airport, Wise, Virginia. The private pilot and passenger were fatally injured. Visual meteorological conditions prevailed. No flight plan had been filed for the on-demand air taxi flight which departed Lonesome Pine Airport about 1 minute before, and which was conducted under 14 CFR Part 91.

The airplane had been chartered by a company to take one of their employees to Richmond, Virginia, and return. No witnesses were located who talked to the pilot or passenger prior to departure.

A witness, at the departure end of runway 24, reported that the engines sounded normal when the airplane flew past his position. He then pulled onto the runway, in a vehicle, and, looking through his rearview mirror, saw the airplane descending in a nose down attitude, with one wing low. The witness returned to the departure end of the runway where he observed flame and smoke coming from the airplane on the ground.

Another witness heard the takeoff and reported the engines sounded normal. He first saw the airplane as it passed the departure end of the runway. He said the airplane, "...flipped up on one wing and then went down to the right...." A few seconds later, he saw black smoke.

The accident occurred during the hours of daylight at location 36 degrees, 59 minutes North, and 82 degrees, 33 minutes West.

PERSONNEL INFORMATION

The pilot held a Private Pilot Certificate, with single and multi-engine land and instrument airplane ratings. He held an FAA Airman 2nd Class Medical Certificate with no limitations, dated July 14, 1994. The pilot's log book was not recovered. The pilot's wife reported that her husband flew about 250 hours in the preceding year. Based upon interviews, and FAA records, the pilot's total flight time, was estimated to be:

Total time 898 hours Pilot-In-Command 808 hours Multi-engine 578 hours

The flight instructors, who recommended the pilot for his multi-engine rating, and conducted the last flight review, reported no problems with the pilot's multi-engine proficiency.

AIRCRAFT INFORMATION

The pilot's wife reported that the airplane had been flown about 250 hours since the last annual inspection was conducted on May 20, 1994. According to the mechanics who worked on the airplane, an annual inspection had been started, and several inspection plates had been opened up. Additionally, a cylinder was changed on each engine, after which the engines were run satisfactorily. The mechanics reported that the annual inspection had not been completed at the time of the accident.

No maintenance release was found for the accident flight. The completed maintenance was not listed in the airplane log books. Conflicting statements prevented a determination of whether the pilot was assisted in returning the airplane to flight status, or acted alone.

WRECKAGE AND IMPACT INFORMATION

The airplane wreckage was examined at the accident site and Lonesome Pine Airport on May 25 through May 27, 1995.

The airplane came to rest, upright, in an open field, about 3,000 feet beyond the departure end of runway 24, and about 260 feet below the level of the runway, heading 013 degrees. The landing gear and wing flaps were retracted.

Compression damage was visible on the underside of both wings, the aft fuselage, and the leading edge of each wing which were pushed upward. An impact crater was on the left side of the nose, parallel to the airplane.

A post crash fire consumed the cabin and inboard sections of the wings.

The left engine fuel selector was found on the left main tank, and the right engine fuel selector was found on crossfeed.

Flight control continuity was verified between the control surfaces and the fuselage center section. The rudder trim tab was set at 2 degrees tab right, and the elevator trim tab was set at 10 degrees tab down.

The screen in the fuel control unit of the right engine was clean. Valve train continuity was verified. No impact damage was visible on the spark plugs which were gray in appearance. No metal was found in the engine oil screen. The magnetos were laying on the engine, out of their mounts, and were free to rotate. The right propeller was feathered. No malfunction was found with the engine.

The left engine case was cracked and partial rotation was achieved. The fuel control was melted. No metal was found in the engine oil screen. No impact damage was visible on the spark plugs which were gray in appearance. The magnetos were melted, and could not be

tested. Both propeller blades were separated from the propeller hub, and chord wise scratches were visible on the front surface of the blades.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies were conducted on May 26, 1995, by David W. Oxley, M.D., and William Massello, III, M.D., medical examiners for the Commonwealth of Virginia.

Toxicological testing conducted by the Commonwealth of Virginia, was negative for drugs and alcohol.

ADDITIONAL INFORMATION

Friendship Ambulance, Inc.

According to a letter from the company that requested the flight, the pilot was contacted on May 22, 1995, with a request for a charter flight on May 25, 1995. The pilot indicated that the airplane was currently undergoing an annual inspection, but called back on May 23, 1995, and confirmed that the flight could proceed as requested.

The flight was conducted under 14 CFR Part 91 because Friendship Ambulance Service Inc., did not hold an FAA Air Taxi Certificate.

Airplane Performance Information

The estimated takeoff weight of the airplane was 4429 pounds. Airplane performance charts indicated that at 4500 lbs, the airplane was capable of climbing in excess of 300 feet per minute, when configured with the landing gear and wing flaps retracted, and the propeller on the inoperative engine feathered.

Safety Information

Following are excerpts from the Beech 95-A55 Pilot's Operating Handbook, Section 10, Safety Information, pages 10-45 through 10-57:

...Safe flight with one engine inoperative requires an understanding of the basic aerodynamics involved - as well as proficiency in engine out procedures....

Vmca Airspeed below which directional control cannot be maintained

Vsse Airspeed below which an intentional engine cut should never be made

...The pilot must be prepared to use assertive control input to maintain aircraft control following an engine failure....

...At the first sign of either Vmca or stall warning (which may be evidenced by inability to maintain longitudinal, lateral or directional control, aerodynamic stall buffet, or stall warning horn sound), recovery must be initiated immediately by reducing power to idle on operative engine and lowering the nose to regain Vsse....

...Maintain aircraft control and airspeed at all times. This is cardinal rule No. 1.....

...In any twin engine aircraft, if application of stall recovery controls is delayed, a rapid rolling and yawing motion may develop, even against full aileron and rudder, resulting in the airplane becoming inverted during the onset of a spinning motion. Once the airplane has been permitted to progress beyond the stall and is allowed to reach the rapid rolling and yawing condition, the pilot must immediately initiate the generally accepted spin recovery procedure for multi-engine airplanes....

THE LONGER THE PILOT DELAYS BEFORE TAKING CORRECTIVE ACTION, THE MORE DIFFICULT RECOVERY WILL BECOME....

Remember that an airplane, at or near traffic pattern and approach altitudes, cannot recover from a spin, or perhaps even a stall, before impact with the ground....

Wreckage Release

The aircraft wreckage was released to Mr. Jamie McArthur, a representative of the Crittenden Adjustment Company on May 27, 1995.

Pilot Information

Certificate:	Private	**Age:**	42,Male
Airplane Rating(s):	Single-engine land; Multi-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:**	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	July 14, 1994
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	898 hours (Total, all aircraft), 578 hours (Total, this make and model), 808 hours (Pilot In Command, all aircraft), 63 hours (Last 90 days, all aircraft), 21 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	**Registration:**	N9672Y
Model/Series:	95-A55 95-A55	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	TC-448
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	May 20, 1994 Annual	**Certified Max Gross Wt.:**	4800 lbs
Time Since Last Inspection:	250 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	3495 Hrs	**Engine Manufacturer:**	CONTINENTAL
ELT:		**Engine Model/Series:**	IO-470-L
Registered Owner:	FRIENDSHIP AMBULANCE SER. INC.	**Rated Power:**	260 Horsepower
Operator:		**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:	LPN ,2685 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	07:20 Local	**Direction from Accident Site:**	60°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	210°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	16°C / 15°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(LNP)	**Type of Flight Plan Filed:**	None
Destination:	RICHMOND , VA (RIC)	**Type of Clearance:**	None
Departure Time:	07:15 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	LONSOME PINE LNP	**Runway Surface Type:**	
Airport Elevation:	2685 ft msl	**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	36.969009,-82.579902(est)

Administrative Information

Investigator In Charge (IIC):	Hancock, Robert
Additional Participating Persons:	DAVE BURGESS; CHARLESTON , WV THOMAS CAMPAGNOLA; WICHITA , KS GEORGE M HOLLINGSWORTH; MOBIL , AL
Original Publish Date:	December 19, 1995
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=38854