Aviation Investigation Final Report

Location:	GULFPORT, Mississippi	**Accident Number:**	MIA00LA272
Date & Time:	September 26, 2000, 19:00 Local	**Registration:**	N9713R
Aircraft:	Beech 95-55	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight had completed an ILS approach to runway 36, with a simulated engine out, but did not touch down. The airplane was on final approach when both engines lost power. The CFI said as we turned onto left downwind for runway 36, '...I set zero thrust with the [left] throttle and prop control. About mid field the right engine began to lose power. I turned on both boost pumps and pushed both props and throttles forward. The left engine surged a couple of times but could not produce power. The right engine did not respond...we turned towards the airport...I switched to aux on the fuel tanks and tried to restart to no avail...switched back to mains to no avail. At this time we were about 400 feet agl and realized we would not make the airport. We turned north to land on highway 49...shortly after touchdown the right wing tip hit a light post. We spun around and came to a stop....' Inspection of the wreckage revealed sufficient fuel. Investigators verified flight control continuity, continuity of the fuel system in all positions, the boost pumps worked, and the vents were clear. Both engines were removed from the airplane to facility test runs of the engines, both engines ran, and no discrepancies were found.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a loss of power on both engines, during a simulated engine out approach, resulting in a forced landing and the subsequent on ground impact with a pole.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings
1. 2 ENGINES - UNDETERMINED
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
3. OBJECT - POLE

Factual Information

On September 26, 2000, about 1900 central daylight time, a Beech 95-55, N9713R, owned by a private individual, impacted with a pole during a forced landing near Gulfport, Mississippi. Visual meteorological conditions prevailed at the time, and no flight plan was filed for the 14 CFR Part 91 training flight. The airplane was substantially damaged. The airline transport-rated/certified flight instructor (CFI) pilot and private-rated dual student pilot reported no injuries. The flight had departed at 1800.

The flight had completed an ILS approach to runway 32, and a simulated engine out, but did not touch down. According to the CFI's statement, "...at 2,000 feet we were level and waiting for vectors to intercept the localizer; we completed the before landing checklist and switched back to main tanks. All indications were normal. Upon localizer intercept I pulled the left throttle to idle. My student made the proper adjustments...I then set zero thrust setting for left engine. Upon missed approach, I returned use of the left engine to my student. We were climbing...and [I] told ATC we would like to make a visual approach to a full stop...as we turned onto left downwind for [runway] 36, I again pulled the left throttle to idle...my student reacted correctly...I set zero thrust with the throttle and prop control. About mid field the right engine began to lose power. I turned on both boost pumps and pushed both props and throttles forward. The left engine surged a couple of times but could not produce power. The right engine did not respond. I immediately told my student to turn towards the airport while I evaluated the situation. I switched to aux on the fuel tanks and tried to restart to no avail. I then switched back to mains to no avail. At this time we were about 400 feet agl and realized we would not make the airport. We turned north to land on highway 49...shortly after touchdown the right wing tip hit a light post. We spun around and came to a stop...."

Inspection of the wreckage revealed that there was 22 gallons of fuel found in the left main tank, and 20 gallons of fuel in the right main tank. The fuel selector for the left engine was found selected to main tank. The fuel selector for the right engine was found selected to the main tank.

According to the FAA inspector's statement, "...we verified that there was flight control continuity...continuity of the fuel system in all positions...the boost pumps worked, [and the vents were clear...the following items were noted...the right intake manifold had a hole the size of a quarter...not caused by impact...the stops on the right fuel selector did not perform their intended function...the mixture control was warn and loose on the left engine...plugs on left engine were dark with soot."

Both engines were removed from the airplane and taken to Continental Motor's facilities, Mobile, Alabama, to facility test runs of the engine. Both engines were run under the supervision of the FAA for the NTSB, on October 4-5, 2000.

The FAA report reference the engine runs revealed that, "...both engines ran...[the CFI] had asked the question, 'what would happen if an engine is at idle and the boost pump was turned on?" We confirmed that the left engine's rpm would be significantly reduced with the boost pumps on and the engine at idle...the right engine ran with the hole in the intake manifold throughout the range of the engine. We could not simulate the effect of the pressure differences around the engine during flight since there was not a cowling on the engine. The effect of the hole in the manifold could not be determined conclusively. We could not duplicate the effects, if any, the constant speed propeller might have in flight...I was present for the...examination of the right...and left...engines...I have read the report from Teledyne Continental Motors [TCM]...I concur with the finding that are contained in the report. (See the TCM and FAA inspector's report, attachments to this report).

According to the air traffic control (ATC) transcript of voice recordings, the flight was cleared to land at 1901:27.

At 1901:56, the local control (LC) called the pilot of N9713R, and said, "...you appeared to have lined up with the old closed runway sir that is not runway three six break off to the right." The pilot answered, "...we have an emergency we lost pitch and power...." The flight was then cleared to land on any runway.

At 1902:16, the LC asked, "...are you going to be able to make the airport," and the pilot answered, "negative."

Between 1902:24, and 1902:30, the pilot's microphone was open and the following was transmitted, "...Cheryl your airplane...pull the power back pull the power back...pull the power back...(unintelligible)."

The airplane and engines were released to Mr. Thomas Cook, Insurance Adjuster, representing the owner's insurance company, on October 6, 2000.

Pilot Information

Certificate:	Airline transport; Flight instructor	**Age:**	31,Female
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	May 30, 2000
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	3900 hours (Total, all aircraft), 105 hours (Total, this make and model), 3525 hours (Pilot In Command, all aircraft), 260 hours (Last 90 days, all aircraft), 85 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N9713R
Model/Series:	95-55 95-55	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	TC-17
Landing Gear Type:	Retractable - Tricycle	**Seats:**	5
Date/Type of Last Inspection:	July 30, 2000 Annual	**Certified Max Gross Wt.:**	5300 lbs
Time Since Last Inspection:	8 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	2770 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	IO-470L
Registered Owner:	MICHAEL P. COURSEY	**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:	GPT ,28 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	19:10 Local	**Direction from Accident Site:**	360°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	10°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	18°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	18:00 Local	**Type of Airspace:**	

Airport Information

Airport:	GULFPORT-BILOXI REGIONAL GPT	**Runway Surface Type:**	Asphalt
Airport Elevation:	28 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	36	**IFR Approach:**	Visual
Runway Length/Width:	4950 ft / 150 ft	**VFR Approach/Landing:**	Forced landing;Full stop

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	30.38022,-89.100509(est)

Administrative Information

Investigator In Charge (IIC):	Yurman, Alan
Additional Participating Persons:	DOUGLAS SMYLEY; JACKSON , MS
Original Publish Date:	May 8, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=50350