Aviation Investigation Final Report

Location:	COLBERT, Georgia	**Accident Number:**	ATL99LA037
Date & Time:	January 2, 1999, 16:01 Local	**Registration:**	N7295P
Aircraft:	Piper PA-24-250	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The preflight inspection of the fuel tanks by the pilot revealed the tanks were filled to the bottom of the filler neck, which the pilot believed was appropriately full. After starting the engine, fuel began leaking from the fuel sump drain hose. The pilot operated the spring loaded valve handle inside the airplane which apparently stopped the leak. Shortly after departing, the engine began running rough upon which the pilot began a deviation to another airport. During this time, the engine began running smoothly whereupon the pilot continued to his initial destination. During descent, the engine began running rough and the pilot decided the tanks had been exhausted. The pilot performed a forced landing causing substantial damage. The airplane cruising endurance based on 75% power and 90 gallons of fuel on board is 5.4 hours. However, the usable fuel capacity on this airplane when the fuel tanks are filled to the bottom of the filler necks is approximately 80 gallons. The actual flight time of this aircraft was 5.55 hours. A Federal Aviation Administration inspector who examined the airplane noted only residual fuel was found in the selector valve and no leaks were found in the fuel system.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Inadequate planning/decision by the pilot, which resulted in fuel exhaustion due to an inadequate supply of fuel.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: DESCENT - NORMAL

Findings
1. (C) PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
2. (C) FLUID,FUEL - EXHAUSTION
3. (C) FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND

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

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

Findings
4. (F) OBJECT - UNDETERMINED

Factual Information

On January 2, 1999, about 1601Eastern Standard Time, a Piper PA-24-250, N7295P, collided with an unknown object during a forced landing near Colbert, Georgia. The airplane was operated by the owner under the provisions of Title 14 CFR Part 91, and Instrument Flight Rules (IFR). Instrument meteorological conditions prevailed at the accident site and an IFR flight plan was filed for the personal flight. There were no injuries to the commercial pilot and the airplane was substantially damaged. The flight originated at Allaire Airport in Belmar, NJ, at 1028 the same day destined for the Gwinnett County Airport, Lawrenceville, Georgia.

According to the pilot, the visual preflight inspection of the aircraft fuel tanks revealed that both tanks were filled to the bottom of the filler neck which the pilot believed was appropriately full (see attached flight manual). After starting the engine, fuel began leaking from the fuel sump drain hose. The pilot operated the spring loaded valve handle inside the airplane which apparently stopped the leak. No fuel was witnessed leaking from the drain hose thereafter. The pilot had estimated the flight would take close to five hours with anticipated head winds. Shortly after departing, according to the pilot, the engine began running rough upon which he began a deviation to another airport. During this time, the engine began running smoothly whereupon the pilot continued to his initial destination. According to the pilot, after an uneventful five hours of flight, during descent, the engine began running rough. The pilot stated, he decided the tanks had been exhausted and immediately asked Air Traffic Control for help to the nearest airport located in Athens, Georgia. After descending through the clouds at 600 feet, the pilot lowered the landing gear and applied full flaps. The airplane was landed on a wet and slightly downhill road. The pilot stated that the right wing hit something before the airplane settled over a drainage ditch along the side of the road (see attached Pilot/Operator Aircraft Accident Report).

The following airplane endurance approximations are based on data obtained in the Piper Airplane PA-24-250 Aircraft Information Manual: The airplane cruising endurance based on 75% power and 90 gallons of fuel on board is 5.4 hours. Note, this cruising range figure includes 45 minutes fuel reserve plus allowance for fuel used during taxi, takeoff, climb, and cruise at the stated power. The usable fuel capacity on this airplane when the fuel tanks are filled to the top of the filler necks is 90 gallons, however when the tanks are filled to the bottom of the filler necks, the approximated quantity of usable fuel is 80 gallons. The actual flight time of this aircraft was 5.55 hours.

According to a Federal Aviation Administration inspector who examined the airplane, four feet of the main right wing was torn off, the main landing gear was broken off, the left horizontal stabilizer was bent, and one propeller blade was bent. The inspector also noted that only residual fuel was found in the selector valve and no leaks were found in the fuel system.

Pilot Information

Certificate:	Commercial	**Age:**	59,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**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 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	December 2, 1997
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	1478 hours (Total, all aircraft), 1000 hours (Total, this make and model), 1376 hours (Pilot In Command, all aircraft), 41 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N7295P
Model/Series:	PA-24-250 PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-2474
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	June 17, 1998 Annual	**Certified Max Gross Wt.:**	2900 lbs
Time Since Last Inspection:	40 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5980 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-540
Registered Owner:	95 POPPA INC.	**Rated Power:**	250 Horsepower
Operator:	JOSEPH J. FRIEND	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	AHN ,802 ft msl	**Distance from Accident Site:**	8 Nautical Miles
Observation Time:	15:32 Local	**Direction from Accident Site:**	45°
Lowest Cloud Condition:	Unknown	**Visibility**	2.5 miles
Lowest Ceiling:	Overcast / 600 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	12 knots / 22 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	100°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	0°C / -1°C
Precipitation and Obscuration:	Light - None - Rain		
Departure Point:	ALLAIRE , NJ (BLM)	**Type of Flight Plan Filed:**	IFR
Destination:	LAWRENCEVILLE , GA (LZU)	**Type of Clearance:**	IFR
Departure Time:	10:28 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	ATHENS/BEN EPPS AIRPORT AHN	**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	Wet
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	34.030509,-83.209434(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Preston
Additional Participating Persons:	PATRICK SCHIPPERT; THOMAS SULLY; SCOTT M GRABON;
Original Publish Date:	April 25, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=45508