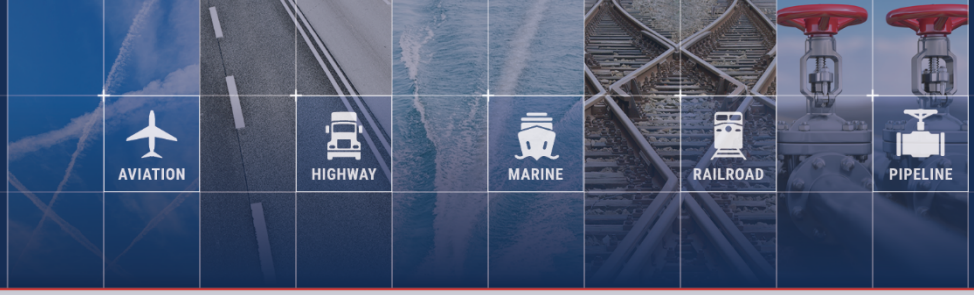

Aviation Investigation Final Report

Location:	Jonesboro, Georgia	**Accident Number:**	ERA24LA006
Date & Time:	October 10, 2023, 22:30 Local	**Registration:**	N55162
Aircraft:	Piper PA28	**Aircraft Damage:**	Substantial
Defining Event:	Fuel exhaustion	**Injuries:**	2 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Both pilots reported that they were sharing flying responsibilities during the night cross-country flights to build flight time. The pilot in the left seat was performing the takeoffs and landings, while the pilot in the right seat flew the en route portion of the flights. Before departing on the accident flight, the pilots added 15 gallons of fuel, which brought the right fuel tank to full and the left fuel tank to about half to three-fourths full. The pilot in the left seat departed with the fuel selector position to the left tank (the fuel selector handle was located on the left side of the cockpit).

As they neared the destination airport of the planned 1 hour 47-minute flight, the pilot in the left seat switched the fuel selector from left tank to right tank. At that time, the left fuel tank would have been nearly empty after departing with that tank half full and drawing from it for the entire accident flight. Shortly thereafter, the engine lost all power. She performed the emergency checklist items but was unable to restart the engine while the pilot in the right seat continued flying the airplane. The airplane was unable to glide to the nearest airport and they performed a forced landing into trees.

Examination of the wreckage revealed that it came to rest nose-down in a wooded area. Both wing fuel tanks were breached and there was no fuel odor or browning of vegetation at the accident site. The left-wing fuel cap remained secured; however, the right-wing fuel cap was missing and was not located at the accident site. Based on this information, it is likely that the right-wing fuel cap was not secured before departure and, during the accident flight, fuel siphoned from the right tank without either pilot noticing. The loose or missing right fuel cap was not identified during the preflight inspection of the airplane nor was the resulting fuel imbalance identified during the flight.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Both pilots' inadequate preflight inspection and inadequate fuel monitoring during the flight, which resulted in a total loss of engine power due to fuel exhaustion.

Findings

Personnel issues	Preflight inspection - Flight crew
Personnel issues	Monitoring equip/instruments - Flight crew
Aircraft	Fuel - Fluid level

Factual Information

History of Flight

Prior to flight	Aircraft inspection event
Enroute-cruise	Fuel exhaustion (Defining event)
Emergency descent	Off-field or emergency landing
Landing	Collision with terr/obj (non-CFIT)

On October 10, 2023, about 2230 eastern daylight time, a Piper PA-28-140, N55162, was substantially damaged when it was involved in an accident near Jonesboro, Georgia. The private pilot and commercial pilot were seriously injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The private pilot/owner reported that she was in the left seat. The commercial pilot was in the right seat and the flying pilot (pilot-in-command) as they were alternating legs to build flight time. The pilot in the left seat made radio calls while the pilot in the right seat flew. They planned to fly from Destin Executive Airport (DTS), Destin, Florida, to Hartsfield – Jackson Atlanta International Airport (ATL), Atlanta, Georgia. Before departing DTS, they purchased 15 gallons of fuel. Five gallons of fuel completely filled the right fuel tank (25 gallons), and the remaining 10 gallons were added to the left fuel tank. The total fuel onboard was determined to be 38 gallons by using a measuring stick in the left fuel tank (13 gallons) and visually confirming a full right fuel tank. She added that the other pilot also checked the fuel quantity by visual inspection. They departed at 2018 with a planned flying time of 1 hour and 47 minutes.

The pilot in the left seat added that as they were nearing ATL, at 3,500 ft mean sea level, she switched from the left fuel tank to the right fuel tank (the fuel selector was located on the left side of the cockpit). Shortly thereafter, the engine lost all power. She performed the emergency checklist items but was unable to restart the engine while the pilot in the right seat continued to fly the airplane. The airplane was unable to glide to the nearest airport and they performed a forced landing into trees.

The commercial pilot in the right seat reported that the private pilot/owner in the left seat was pilot-in-command. She further stated that the private pilot in the left seat performed the takeoffs and landings, while she flew the en route portion of the flight from the right seat, as they were both building flight time. She added that the airplane landed at DTS with a fuel load about half full. They purchased 15 gallons of fuel, which brought the fuel load to nearly full (full right tank of 25 gallons and left tank 18.5 out of 25 gallons). The pilot in the left seat reported that she was taking off with the fuel selector positioned to the left fuel tank. After the accident, the pilot in the left seat stated that she forgot to switch fuel tanks throughout the accident flight.

Review of a pilot operating handbook for the accident airplane make and model revealed that the engine consumed 8.4 gallons of fuel per hour at 75% power, which equated to about half the total capacity of the left wing fuel tank during the accident flight.

Examination of the accident site by a Federal Aviation Administration inspector revealed that the wreckage came to rest nose-down in a wooded area. Both wings and the fuselage sustained substantial damage. Both wing fuel tanks were breached and there was no fuel odor or browning of vegetation at the accident site. The inspector observed that the left wing fuel cap remained secured; however, the right wing fuel cap was missing, and he could not locate it at the accident site.

As of the publication of this report, no insurance coverage has been identified and the wreckage has not been recovered from the wooded area.

Pilot Information

Certificate:	Commercial	**Age:**	37,Female
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	April 20, 2019
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	June 5, 2023
Flight Time:	1267 hours (Total, all aircraft), 600 hours (Total, this make and model)		

Pilot Information

Certificate:	Commercial	**Age:**	34,Female
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	None
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	December 10, 2020
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	December 10, 2020
Flight Time:	510 hours (Total, all aircraft), 60 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N55162
Model/Series:	PA28 140	**Aircraft Category:**	Airplane
Year of Manufacture:	1973	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	28-7325315
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	October 17, 2022 Annual	**Certified Max Gross Wt.:**	2150 lbs
Time Since Last Inspection:	522 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5433 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	C91A installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-320-E3D
Registered Owner:	On file	**Rated Power:**	160 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night
Observation Facility, Elevation:	HMP,881 ft msl	**Distance from Accident Site:**	5 Nautical Miles
Observation Time:	22:35 Local	**Direction from Accident Site:**	140°
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	Broken / 7500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	29.94 inches Hg	**Temperature/Dew Point:**	16°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Destin, FL (DTS)	**Type of Flight Plan Filed:**	None
Destination:	Atlanta, GA (ATL)	**Type of Clearance:**	Traffic advisory
Departure Time:	19:18 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	2 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	2 Serious	**Latitude, Longitude:**	33.474722,-84.373611

Administrative Information

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Danny Cox; FAA/FSDO; Atlanta , GA
Original Publish Date:	July 24, 2024
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=193226