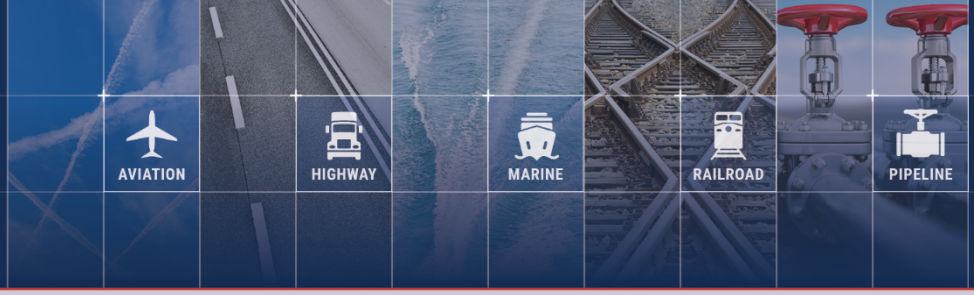

Aviation Investigation Final Report

Location:	Houlton, Maine	**Accident Number:**	ERA17CA039
Date & Time:	November 8, 2016, 16:10 Local	**Registration:**	N7682P
Aircraft:	Piper PA 24-250	**Aircraft Damage:**	Substantial
Defining Event:	Fuel starvation	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot had recently purchased the airplane; he and a flight instructor were conducting a local familiarization flight. After about 1 hour of flying with the left inboard fuel tank selected, he returned to the airport traffic pattern and performed two additional takeoffs. While on the left downwind leg of the traffic pattern, the engine experienced a total loss of power. The pilot checked that the fuel pump was on while the flight instructor attempted to determine why the engine lost power. The flight instructor then took control of the airplane and turned toward the runway. The airplane contacted the tops of some trees and landed on uneven terrain covered with tall grass and brush about 500 ft short of the runway, which resulted in substantial damage to the firewall, fuselage, and wings. Before exiting the airplane, the pilot moved the fuel selector to the "off" position.

A Federal Aviation Administration inspector examined the wreckage and found that the left inboard fuel tank was absent of fuel, while the right inboard fuel tank was full. The pilot reported no preimpact mechanical malfunctions or failures with the airplane that would have precluded normal operation. When asked how the accident could have been prevented, the pilot stated, "switched to the other fuel tank."

Probable Cause and Findings

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

A total loss of engine power due to fuel starvation, which resulted from the pilot's mismanagement of the available fuel.

Findings

Aircraft	Fuel selector/shutoff valve - Not used/operated
Personnel issues	Use of equip/system - Pilot
Aircraft	Fuel - Fluid level
Aircraft	Fuel - Fluid management
Environmental issues	(general) - Contributed to outcome

Factual Information

History of Flight

Approach-VFR pattern downwind	Fuel starvation (Defining event)
Approach-VFR pattern downwind	Loss of engine power (total)

Pilot Information

Certificate:	Private	**Age:**	57,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	September 28, 2015
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 312 hours (Total, all aircraft), 1 hours (Total, this make and model), 265 hours (Pilot In Command, all aircraft), 9.8 hours (Last 90 days, all aircraft), 4.3 hours (Last 30 days, all aircraft)		

Flight instructor Information

Certificate:	Flight instructor	**Age:**	89,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):		**Restraint Used:**	Lap only
Instrument Rating(s):		**Second Pilot Present:**	Yes
Instructor Rating(s):	Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 2	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N7682P
Model/Series:	PA 24-250 250	**Aircraft Category:**	Airplane
Year of Manufacture:	1961	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-2891
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	June 17, 2016 Annual	**Certified Max Gross Wt.:**	2899 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	5617.4 Hrs as of last inspection	**Engine Manufacturer:**	LYCOMING
ELT:	C91 installed, not activated	**Engine Model/Series:**	O-540 SERIES
Registered Owner:	On file	**Rated Power:**	250 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	HUL,489 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	20:53 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	200°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.9 inches Hg	**Temperature/Dew Point:**	12°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Houlton, ME (HUL)	**Type of Flight Plan Filed:**	None
Destination:	Houlton, ME (HUL)	**Type of Clearance:**	None
Departure Time:	15:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	HOULTON INTL HUL	**Runway Surface Type:**	Asphalt
Airport Elevation:	489 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	05	**IFR Approach:**	None
Runway Length/Width:	5015 ft / 100 ft	**VFR Approach/Landing:**	Traffic pattern

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:**	46.115276,-67.800834(est)

Administrative Information

Investigator In Charge (IIC):	Mccarter, Lawrence
Additional Participating Persons:	Mark Auclair; FAA FSDO; Portland, ME
Original Publish Date:	December 15, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=94353