



Aviation Investigation Final Report

Location:	Smithfield, Rhode Island	Accident Number:	CEN19LA213
Date & Time:	June 22, 2019, 05:51 Local	Registration:	N415WP
Aircraft:	Ercoupe 415	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was about midway to his destination airport in a light sport airplane when he detected the odor of hot oil, so he elected to return to his departure airport to land. While on approach to land, the airplane experienced a total loss of engine power and its propeller stopped turning. After determining a nearby road was unsafe to land on due to vehicles, the pilot elected to land in a pond short of the approach end of the runway. The left wing separated from the fuselage during the landing.

Examination of the airplane's engine showed no anomalies, and the source of the odor could not be determined. Examination of the cockpit showed that the fuel control was in the ON position and that the carburetor heat was off. Weather conditions at the airport were conducive to serious carburetor icing at glide power. It is likely that, during the approach, the pilot failed to use carburetor heat and the engine experienced carburetor icing, which led to the loss of engine power.

Probable Cause and Findings

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

The pilot's failure to use carburetor heat on approach in weather conditions conducive to carburetor icing, which resulted in a forced landing to a pond.

Findings

Environmental issues	Conducive to carburetor icing - Response/compensation
Environmental issues	Conducive to carburetor icing - Effect on equipment
Personnel issues	Use of equip/system - Pilot
Personnel issues	Forgotten action/omission - Pilot

Factual Information

History of Flight

Enroute-descent	Other weather encounter
Approach-VFR pattern final	Loss of engine power (total) (Defining event)
Emergency descent	Collision with terr/obj (non-CFIT)

On June 22, 2019 at 0951 EDT, an Ercoupe 415C airplane, N415WP, impacted in a swamp near North Central State Airport (SFZ), Smithfield, Rhode Island, following a total loss of engine power. The sport pilot was not injured. The airplane was substantially damaged. The airplane was registered to a private individual and operated as a Title 14 *Code of Federal Regulations Part 91* personal flight within the light sport aircraft category. Day visual meteorological conditions were reported at the accident site and along the route of flight about the time of the accident. The flight originated from North Central State Airport (SFZ), Rhode Island, and was destined for Southbridge Municipal Airport (3B0), Massachusetts.

The pilot was about midway between SFZ and 3B0 when he detected the odor of hot oil. He elected to return to SFZ and land. While on approach to land there was a total loss of engine power and the propeller stopped turning. The pilot landed in a swamp short of the approach end of the runway. The left wing separated from the fuselage during the landing.

The wreckage examination was limited due to damage to the airplane and water immersion. The responding FAA inspector was able to verify the engine rotated and compression was present at each cylinder. Oil was drained from the engine crankcase during recovery. Murky water was present in fuel samples taken from the wreckage and the fuel filter was contaminated by water and slime. The fuel control valve was found in the ON position and the carburetor heat knob was found in the IN/OFF position. The carburetor was impact-separated from the engine. Based on the evidence available, no anomalies were noted with the engine or airframe and the source of the oil smell was not identified.

Weather at SFZ at 0950 was reported as temperature 21° C, dewpoint 13° C, wind 320° at 9 kts, altimeter 29.79. According to the FAA carburetor icing chart the weather conditions were conducive to serious carburetor icing at glide power.

Pilot Information

Certificate:	Sport Pilot	Age:	70, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport pilot None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	900 hours (Total, all aircraft), 24 hours (Total, this make and model), 24 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Ercoupe	Registration:	N415WP
Model/Series:	415 C	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	770
Landing Gear Type:	Tricycle	Seats:	
Date/Type of Last Inspection:	May 28, 2019 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	
Airframe Total Time:	2182.8 Hrs as of last inspection	Engine Manufacturer:	
ELT:	Installed, not activated	Engine Model/Series:	
Registered Owner:	On file	Rated Power:	
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:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	33°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.7 inches Hg	Temperature/Dew Point:	18°C / 15°C
Precipitation and Obscuration:			
Departure Point:	Smithfield, RI (SFZ)	Type of Flight Plan Filed:	None
Destination:	Southbridge, MA (3B0)	Type of Clearance:	None
Departure Time:	08:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	North Central State Airport SFZ	Runway Surface Type:	
Airport Elevation:	441 ft msl	Runway Surface Condition:	
Runway Used:		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:	41.913055,-71.485275(est)

Administrative Information

Investigator In Charge (IIC):	Baker, Daniel
Additional Participating Persons:	Craig Souza; FAA; Boston, MA
Original Publish Date:	December 3, 2020
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=99787

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).