



Aviation Investigation Final Report

Location:	Hallettsville, Texas	Accident Number:	CEN20LA170
Date & Time:	April 30, 2020, 14:30 Local	Registration:	N2275H
Aircraft:	Ercoupe 415	Aircraft Damage:	Substantial
Defining Event:	Fuel related	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was making a cross-country flight and reported that, about 1 hour into the flight, the engine began to “rattle” and “vibrate.” The engine lost power but remained running with about 1,000 RPMs. The pilot recognized that the airplane could not maintain altitude and executed a forced landing in a field. Upon landing, the airplane nosed over and sustained substantial damage to the forward underside of the fuselage. No mechanical anomalies were found with the engine.

The cockpit fuel selector was found in the left fuel tank position. Contaminated fuel was found in the left-wing tank. The source of the fuel contamination could not be determined.

The carburetor was heavily soiled. Murky fuel and sediment were present in the gascolator sediment bowl. The airplane was operating in conditions that were conducive to serious carburetor icing at descent power. However, the carburetor heat knob in the cockpit was not engaged. The combination of contaminated fuel and possible carburetor icing likely resulted in the partial loss of engine power.

Probable Cause and Findings

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

The partial loss of engine power due to contaminated fuel and carburetor ice.

Findings

Aircraft

Fuel - Fluid condition

Environmental issues

Conducive to carburetor icing - Contributed to outcome

Factual Information

History of Flight

Enroute	Fuel related (Defining event)
Enroute	Loss of engine power (partial)

On April 30, 2020, about 1430 central daylight time, an Ercoupe 415-C, N2275H, sustained substantial damage when it was involved in an accident near **Hallettsville Airport (34R)**, Hallettsville, Texas. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

After refueling, the pilot departed from **Garner Field Airport (UVA)**, Uvalde, Texas, about 1330 with an intended destination of **Eagle Lake Airport (ELA)**, Eagle Lake, Texas. **The pilot stated that, about 1 hour into the flight, the engine began to “rattle” and “vibrate.”** The engine lost **partial power and was running with** about 1,000 RPMs. The pilot started to fly **toward 34R, which was 7 miles away,** but realized that **the airplane** could not maintain altitude and would not make **it to** the airport. The pilot maneuvered the airplane for an emergency landing in a field. During the landing, the nose landing gear collapsed, and the airplane nosed over.

Postaccident examination of the airplane found buckling was on the forward underside of the fuselage **by** the engine firewall, nose landing gear mount, and wings. Engine drive continuity was confirmed. Intake/exhaust valve functionality and cylinder compression was confirmed. No mechanical anomalies were found with the engine. The lower **Nos. 1 and 4** spark plugs were found fouled and carbon bridged.

The right-wing fuel tank was found nearly empty, the header fuel tank was about **two-thirds** full, and the left-wing fuel tank was almost full. The cockpit fuel selector was found in the left tank position. Unidentified contamination was found in a fuel sample taken from the left-wing fuel tank. A fuel sample taken from the pilot’s last refueling source (UVA) **found no** contaminants.

The carburetor was heavily soiled. The carburetor and gascolator/sediment bowl contained sediment and murky fuel. The carburetor heat knob **in** the cockpit was found not engaged. According to the carburetor icing probability chart in Federal Aviation Administration Special Information Bulletin CE-09-35, with a temperature of 81°F and a dew point of 27°F, the airplane was operating within the range of serious icing at descent power.

Pilot Information

Certificate:	Private	Age:	57, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	March 20, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 500 hours (Total, all aircraft), 100 hours (Total, this make and model), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Ercoupe	Registration:	N2275H
Model/Series:	415 C	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2900
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	May 20, 2019 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1786 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Not installed	Engine Model/Series:	C85-12F
Registered Owner:	On file	Rated Power:	85 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:	K3T5,324 ft msl	Distance from Accident Site:	29 Nautical Miles
Observation Time:	14:35 Local	Direction from Accident Site:	12°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.08 inches Hg	Temperature/Dew Point:	27°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Uvalde, TX (UVA)	Type of Flight Plan Filed:	None
Destination:	Eagle Lake, TX (ELA)	Type of Clearance:	None
Departure Time:	13:30 Local	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	29.44,-97.06(est)

Administrative Information

Investigator In Charge (IIC):	Lemishko, Alexander
Additional Participating Persons:	Carl Thomas; FAA FSDO; Houston, TX
Original Publish Date:	May 3, 2022
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=101238

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