



Aviation Investigation Final Report

Location:	Pittsboro, North Carolina	Accident Number:	ERA22LA258
Date & Time:	June 3, 2022, 11:15 Local	Registration:	N44374
Aircraft:	Taylorcraft BC12-D1	Aircraft Damage:	Substantial
Defining Event:	Fuel contamination	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot, and his flight instructor, were on a local training flight practicing maneuvers. Shortly after the student transferred fuel from the wing tanks to the main fuel tank, the engine lost all power. Unable to restart the engine, they performed a forced landing to a wheat field. During the landing, the airplane nosed over and came to rest inverted.

Examination of the airplane revealed water and corrosion present in the fuel gascolator. The night before the accident the airplane was parked outside, and it had rained. The student pilot reported that as part of his preflight, he drained the sump at the bottom of the engine but did not drain the wing fuel sumps. The flight instructor reported that he was not familiar with the airplane and the location of the fuel sumps.

Probable Cause and Findings

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

The student pilot, and flight instructor’s, inadequate preflight inspection, during which they failed to detect water contamination in the fuel system, which resulted in a total loss of engine power.

Findings

Aircraft	Fuel - Fluid condition
Personnel issues	Preflight inspection - Student/instructed pilot
Personnel issues	Preflight inspection - Instructor/check pilot

Factual Information

History of Flight

Prior to flight	Aircraft inspection event
Maneuvering	Fuel contamination (Defining event)
Emergency descent	Off-field or emergency landing

On June 3, 2022, about 1115 eastern daylight time, a Taylorcraft BC12-D1, N44374, was substantially damaged when it was involved in an accident near Pittsboro, North Carolina. The student pilot and flight instructor were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the flight instructor, they departed on a local area training flight. After flying for about 40 to 50 minutes, while in cruise flight at 2,000 feet mean sea level, the engine stopped producing power. They used the emergency checklist to attempt to restart the engine to no avail. The student pilot performed a forced landing to a wheat field. During the landing rollout, the airplane impacted a rut in the field, flipped over and came to rest inverted.

Examination of the airplane revealed the water and corrosion in the fuel gascolator. The airplane was parked outside on the ramp the night before the accident, and it had rained. The student pilot stated that about 5 to 10 minutes before the loss of power he transferred fuel from the wing fuel tank to the main fuel tank. He also reported that during his preflight he drained the fuel sump at the gascolator, but not the wing fuel tanks. The flight instructor stated that he was not familiar with the airplane and the location of the fuel sumps.

Pilot Information

Certificate:	Student	Age:	58, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	September 16, 2020
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	237.25 hours (Total, all aircraft), 88.5 hours (Total, this make and model), 73.5 hours (Pilot In Command, all aircraft), 62.5 hours (Last 90 days, all aircraft), 45 hours (Last 30 days, all aircraft)		

Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	58, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	February 12, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 12, 2022
Flight Time:	1100 hours (Total, all aircraft), 8.1 hours (Total, this make and model), 1052 hours (Pilot In Command, all aircraft), 90 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 4.7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Taylorcraft	Registration:	N44374
Model/Series:	BC12-D1	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	10174
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	December 13, 2021 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	80 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1483 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	C91 installed, not activated	Engine Model/Series:	A&C 65
Registered Owner:	On file	Rated Power:	65 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:	TTA,247 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	11:55 Local	Direction from Accident Site:	131°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.86 inches Hg	Temperature/Dew Point:	26°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Sanford, NC (TTA)	Type of Flight Plan Filed:	VFR
Destination:	Sanford, NC (TTA)	Type of Clearance:	None
Departure Time:	10:15 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	35.690483,-79.25653

Administrative Information

Investigator In Charge (IIC):	Hill, Millicent
Additional Participating Persons:	Ben Mayberry; FAA/FSDO; Greensboro, NC
Original Publish Date:	June 26, 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=105186

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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](#).