



Aviation Investigation Final Report

Location:	Ivanhoe, North Carolina	Accident Number:	ERA22LA406
Date & Time:	September 5, 2022, 15:55 Local	Registration:	N35243
Aircraft:	Cessna 177B	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	2 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was returning from a cross-country flight and planned to stop for fuel along the way; however, due to deteriorating weather conditions along his route of flight, he was unable to stop. The pilot then became distracted trying to avoid weather when the airplane's engine lost power. The pilot further described that, "We should have landed at the nearest clear airport but got fixated on dodging rain clouds causing time consuming maneuvers to go around the storms into headwinds and unaware of fuel reserves." He subsequently performed a forced landing to a field and struck a ditch resulting in substantial damage to the fuselage. Postaccident examination of the airplane's intact fuel tanks revealed they were empty of useable fuel. Given this information, it is likely that during the unplanned deviations around weather, the airplane's usable fuel supply was exhausted, which resulted in the total loss of engine power and subsequent forced landing.

Probable Cause and Findings

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

The pilot's inadequate preflight and inflight planning, which resulted in a total loss of engine power due to fuel exhaustion.

Findings

Personnel issues	Fuel planning - Pilot
Aircraft	Fuel - Fluid level
Personnel issues	Weather planning - Pilot

Factual Information

History of Flight

Enroute	Fuel exhaustion (Defining event)
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Pilot Information

Certificate:	Private	Age:	73,Female
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:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	BasicMed	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 3, 2021
Flight Time:	339 hours (Total, all aircraft), 113 hours (Total, this make and model), 15 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N35243
Model/Series:	177B	Aircraft Category:	Airplane
Year of Manufacture:	1975	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17702287
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	April 1, 2022 Annual	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	8.1 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4172.4 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C126 installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A1F6D
Registered Owner:	On file	Rated Power:	180 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:	KEYF,133 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	15:55 Local	Direction from Accident Site:	274°
Lowest Cloud Condition:	Scattered / 4500 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	8 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.02 inches Hg	Temperature/Dew Point:	31°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Kill Devil Hills, NC (FFA)	Type of Flight Plan Filed:	None
Destination:	Elizabethtown, NC (EYF)	Type of Clearance:	None
Departure Time:	14:30 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	2 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 Serious	Latitude, Longitude:	34.5845,-78.2419

Administrative Information

Investigator In Charge (IIC): Read, Leah

Additional Participating Persons: Barry Blumquist; FAA/FSDO; Greensboro, NC

Original Publish Date: May 11, 2023

Last Revision Date:

Investigation Class: [Class 4](#)

Note: The NTSB did not travel to the scene of this accident.

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=105902>

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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](#).