



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Wichita, Kansas	Accident Number:	CEN24LA019
Date & Time:	October 20, 2023, 18:55 Local	Registration:	N1413Y
Aircraft:	Cessna 172C	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that she filled the airplane with fuel before departure. After flying for about 4 hours, the engine lost power and she executed a forced landing on a road about 1.5 miles from the destination airport. During the landing roll, the airplane impacted two street signs and a power pole guy wire which resulted in substantial damage to the airplane's left wing and fuselage. The pilot reported that there were no preaccident mechanical malfunctions or failures that would have precluded normal operation.

Postaccident examination of the airplane revealed no anomalies with the fuel system; the fuel tanks were empty, and there was no evidence of a fuel leak. About 8 ounces of fuel were recovered from the gascolator.

The pilot noted that verification of total fuel onboard before each departure and more accurate usage of the airplane's performance charts could have prevented the accident.

Probable Cause and Findings

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

The pilot's inadequate preflight inspection and fuel planning and improper in-flight decision-making, which resulted in a total loss of engine power due to fuel exhaustion.

Findings

Personnel issues	Preflight inspection - Pilot
Personnel issues	Fuel planning - Pilot
Personnel issues	Decision making/judgment - Pilot
Aircraft	Fuel - Fluid management

Factual Information

History of Flight

Prior to flight	Aircraft inspection event
Approach	Fuel exhaustion (Defining event)
Landing-flare/touchdown	Off-field or emergency landing

Pilot Information

Certificate:	Private	Age:	27,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	April 4, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 16, 2022
Flight Time:	288.9 hours (Total, all aircraft), 110.7 hours (Total, this make and model), 204.4 hours (Pilot In Command, all aircraft), 20.9 hours (Last 90 days, all aircraft), 9.1 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N1413Y
Model/Series:	172C	Aircraft Category:	Airplane
Year of Manufacture:	1961	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17249113
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	December 21, 2022 100 hour	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	29 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2136 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	C126 installed, activated, did not aid in locating accident	Engine Model/Series:	O-300D
Registered Owner:	On file	Rated Power:	145 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:	KICT, 1340 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	18:53 Local	Direction from Accident Site:	234°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.83 inches Hg	Temperature/Dew Point:	22°C / 6°C
Precipitation and Obscuration:			
Departure Point:	Wichita, KS (AAO)	Type of Flight Plan Filed:	None
Destination:	Wichita, KS (ICT)	Type of Clearance:	VFR
Departure Time:	18:43 Local	Type of Airspace:	Class C

Airport Information

Airport:	Dwight D Eisenhower ICT	Runway Surface Type:	Concrete
Airport Elevation:	1333 ft msl	Runway Surface Condition:	Dry
Runway Used:	19L	IFR Approach:	Unknown
Runway Length/Width:	7302 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	37.676924,-97.393676(est)

Administrative Information

Investigator In Charge (IIC):	Galbraith, Damian
Additional Participating Persons:	Karen Morrison; FAA; Wichitah, KS
Original Publish Date:	April 12, 2024
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=193286

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).