



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Midland, Texas	Accident Number:	CEN23LA185
Date & Time:	May 9, 2023, 08:00 Local	Registration:	N433CF
Aircraft:	CIRRUS DESIGN CORP SR22	Aircraft Damage:	Substantial
Defining Event:	Fuel starvation	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that when he was about 6 miles from the destination airport, the engine began running very rough. The pilot turned 180° toward an alternate airport that he had just flown over and declared an emergency. He attempted to troubleshoot the engine roughness, but was unsuccessful, and the engine lost total power. Unable to reach the runway, the pilot conducted a forced landing to a rough field. During the forced landing, the airplane sustained substantial damage to the horizontal stabilizer.

Postaccident examination of the airplane revealed the right fuel tank contained no usable fuel, and the left fuel tank contained about 25 gallons of fuel. The fuel selector was found in the right fuel tank position. The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation. After the accident, the pilot stated that he had no memory of changing tanks during the flight.

Probable Cause and Findings

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

The pilot's inadequate fuel management which resulted in a total loss of engine power due to fuel starvation.

Findings

Aircraft	Fuel - Fluid management
Personnel issues	Use of equip/system - Pilot

Factual Information

History of Flight

Enroute	Fuel starvation (Defining event)
Enroute	Loss of engine power (total)
Emergency descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	40, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	April 25, 2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2254 hours (Total, all aircraft), 93 hours (Total, this make and model), 2186 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CIRRUS DESIGN CORP	Registration:	N433CF
Model/Series:	SR22	Aircraft Category:	Airplane
Year of Manufacture:	2003	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	0710
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	January 14, 2022 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3492.1 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	C126 installed, not activated	Engine Model/Series:	IO-550-N
Registered Owner:	On file	Rated Power:	310 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:	KMAF, 2862 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	07:53 Local	Direction from Accident Site:	75°
Lowest Cloud Condition:	Clear	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	19°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Worth, TX (KFWS)	Type of Flight Plan Filed:	None
Destination:	Odessa, TX (KODO)	Type of Clearance:	VFR flight following
Departure Time:	06:30 Local	Type of Airspace:	Class C

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	31.942214,-102.23484(est)

Administrative Information

Investigator In Charge (IIC): Rutt, Brian

Additional Participating Persons: Peter Keck; FAA - Lubbock FSDO

Original Publish Date: July 7, 2023

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=174535>

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](#).