Aviation Investigation Final Report

Location:	Hungry Horse, Montana	**Accident Number:**	WPR24LA048
Date & Time:	November 18, 2023, 12:25 Local	**Registration:**	N924RD
Aircraft:	FLIGHT DESIGN GMBH CTLS	**Aircraft Damage:**	Substantial
Defining Event:	Fuel exhaustion	**Injuries:**	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

About four hours into the repositioning flight, and about six miles from his intended destination, the pilot contacted the tower controller and was informed that the airport was under instrument flight rules (IFR) conditions, and that he was not cleared to land. The pilot made the decision to maneuver to the southeast to ascertain whether they should return to their home airport or land at a nearby airport and wait for the weather to clear. Shortly after departing the area enroute to an alternate airport, the airplane lost engine power. The pilot promptly attempted to restart the engine; however, his efforts were unsuccessful. The pilot subsequently executed a forced landing into a lake resulting in substantial damage to the fuselage.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation. He reported that there was no engine roughness or warnings before the engine quit, and it sounded as if the airplane ran out of fuel. He reported that he departed with 26.1 gallons of fuel and, according to the inflight computer, had about 5.72 gallons of remaining fuel when they arrived at the destination airport.

In the recommendation section of the NTSB Accident/Incident Reporting Form 6120.1, the pilot listed ways that the accident could have been prevented, to include not relying on fuel management systems.

Probable Cause and Findings

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

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

Findings

Personnel issues	Fuel planning - Pilot
Personnel issues	Decision making/judgment - Pilot
Aircraft	Fuel - Fluid management
Environmental issues	(general) - Contributed to outcome

Factual Information

History of Flight

Enroute-cruise	Fuel exhaustion (Defining event)
Enroute-cruise	Ditching

Pilot Information

Certificate:	Sport Pilot	**Age:**	59,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	4-point
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Sport pilot	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	June 1, 2019
Flight Time:	(Estimated) 541 hours (Total, all aircraft), 471 hours (Total, this make and model), 437 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	FLIGHT DESIGN GMBH	**Registration:**	N924RD
Model/Series:	CTLS	**Aircraft Category:**	Airplane
Year of Manufacture:	2016	**Amateur Built:**	
Airworthiness Certificate:	None	**Serial Number:**	F-16-01-51
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	March 29, 2023 Annual	**Certified Max Gross Wt.:**	1320 lbs
Time Since Last Inspection:	45 Hrs	**Engines:**	1
Airframe Total Time:	520 Hrs at time of accident	**Engine Manufacturer:**	
ELT:	C91 installed, activated, aided in locating accident	**Engine Model/Series:**	
Registered Owner:	On file	**Rated Power:**	
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:	KGPI,2976 ft msl	**Distance from Accident Site:**	11 Nautical Miles
Observation Time:	11:28 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear / 1200 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 1200 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	29.99 inches Hg	**Temperature/Dew Point:**	-1°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Great Fall, MT (GTF)	**Type of Flight Plan Filed:**	None
Destination:	Kalispell , MT (GPI)	**Type of Clearance:**	None
Departure Time:	07:30 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	2 Minor	**Latitude, Longitude:**	48.32011,-113.98095

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Luke Eidt; Federal Aviation Administration; Helena, MT
Original Publish Date:	October 10, 2024
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=193473

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.