



Aviation Investigation Final Report

Location:	Trinity, Virginia	Accident Number:	ERA24LA367
Date & Time:	September 1, 2024, 11:38 Local	Registration:	N136TR
Aircraft:	REDFIELD THOMAS C RV-6A	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that before departing for the 508 nautical mile cross-country flight, he had a total of 38 gallons of fuel onboard. After departing his home airport, the pilot climbed the airplane to 11,000 ft mean sea level (msl) and was flying “[visual flight rules] on top.” While at 11,000 ft msl, the pilot requested radar vectors around some weather from air traffic control (ATC), during which time, the pilot noticed that his fuel consumption was much higher than he had anticipated. The pilot asked ATC for radar vectors to the nearest airport. The pilot described that the airplane “ran out of fuel” about 7 miles from the diversion airport. The pilot performed a forced landing in a field, resulting in substantial damage to the airplane’s fuselage and wings.

A postaccident examination of the wreckage by a Federal Aviation Administration inspector revealed that both wing fuel tanks were absent of fuel and there was no evidence of a fuel leak. After the airplane was recovered, the airframe and engine’s fuel systems were examined in detail and there was no evidence of any preimpact anomalies or failures that would have precluded normal operation.

Probable Cause and Findings

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

The pilots’ improper in-flight fuel management, which resulted in a total loss of engine power due to fuel exhaustion.

Findings

Aircraft	Fuel - Fluid level
Personnel issues	Identification/recognition - Pilot

Factual Information

History of Flight

Enroute	Fuel exhaustion (Defining event)
Enroute	Loss of engine power (total)
Landing	Off-field or emergency landing

Pilot Information

Certificate:	Private	Age:	66,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:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Unknown With waivers/limitations	Last FAA Medical Exam:	October 27, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	March 21, 2024
Flight Time:	227.3 hours (Total, all aircraft), 80 hours (Total, this make and model), 127.9 hours (Pilot In Command, all aircraft), 6.4 hours (Last 90 days, all aircraft), 1.3 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Passenger Information

Certificate:		Age:	Female
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	4-point
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	REDFIELD THOMAS C	Registration:	N136TR
Model/Series:	RV-6A	Aircraft Category:	Airplane
Year of Manufacture:	2000	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	34132
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	April 3, 2024 Annual	Certified Max Gross Wt.:	1900 lbs
Time Since Last Inspection:	31.6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	803 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360-A1A
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:	ROA,1138 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	11:54 Local	Direction from Accident Site:	201°
Lowest Cloud Condition:	Few / 9500 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 11000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/ None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.05 inches Hg	Temperature/Dew Point:	26°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Valparaison, IN (VPZ)	Type of Flight Plan Filed:	None
Destination:	Richmond, VA (FCI)	Type of Clearance:	VFR flight following
Departure Time:	08:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	37.451341,-79.909463(est)

Administrative Information

Investigator In Charge (IIC):	Gibson, Kurt
Additional Participating Persons:	Jay Venable; FAA/FSDO; Richmond, VA
Original Publish Date:	January 21, 2025
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=195060

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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](#).