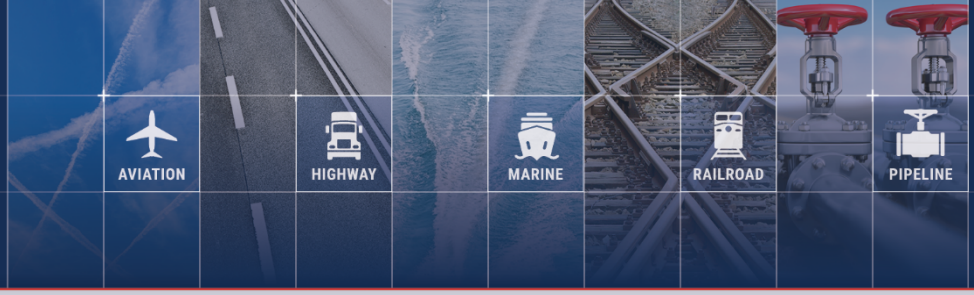

Aviation Investigation Final Report

Location:	Warrenton, Virginia	**Accident Number:**	ERA22LA416
Date & Time:	September 13, 2022, 17:00 Local	**Registration:**	N40WB
Aircraft:	WILLIAM L BELL VANS RV-7A	**Aircraft Damage:**	Substantial
Defining Event:	Unknown or undetermined	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, while in cruise at 2,500 ft mean sea level during a cross-country flight, the engine started to “sputter and surge” followed rapidly by a total loss of power. The pilot completed the emergency checklist by switching fuel tanks, turning on the fuel boost pump, and richening the mixture, but was unsuccessful in his multiple attempts to regain power; he performed a forced landing to a pond due to the densely populated area around him. The airplane impacted the water left-wing-low and was substantially damaged. The wreckage was discarded before it could be further examined; therefore, the reason for the loss of engine power could not be determined.

Probable Cause and Findings

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

A total loss of engine power for reasons that could not be determined because the airplane could not be examined.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Enroute	Unknown or undetermined (Defining event)
Enroute	Off-field or emergency landing
Landing-flare/touchdown	Collision with terr/obj (non-CFIT)

On September 13, 2022, about 1700 eastern daylight time, a Vans RV-7A, N40WB, sustained substantial damage when it was involved in an accident near Warrenton, Virginia. The commercial pilot was not injured. The airplane was being operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, who was also the owner of the airplane, he was in cruise flight at 2,500 ft mean sea level during a cross-country flight when the engine started to “sputter and surge,” followed rapidly by a total power loss. The pilot completed the emergency checklist by switching fuel tanks, turning on the fuel boost pump and adding full mixture, but was unsuccessful in his multiple attempts to regain power; he subsequently landed in a pond due to the otherwise densely populated area around him. The airplane impacted the water left-wing-low and cartwheeled before flipping over and coming to rest upside down.

Photographs of the wreckage confirmed substantial damage; both wings were crushed, and the airframe was buckled. The left fuel tank was full and the fuel selector was on the left tank.

A local towing company that did not specialize in aircraft recovery and salvage was asked by local authorities to recover the wreckage from the water and transport it to their yard. The wreckage was subsequently discarded before it could be examined.

Pilot Information

Certificate:	Commercial	**Age:**	43,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	5-point
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	May 21, 2021
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	June 8, 2021
Flight Time:	(Estimated) 1449.7 hours (Total, all aircraft), 63.1 hours (Total, this make and model), 23.1 hours (Last 90 days, all aircraft), 21.7 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	WILLIAM L BELL	**Registration:**	N40WB
Model/Series:	VANS RV-7A	**Aircraft Category:**	Airplane
Year of Manufacture:	2021	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	71857
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	August 7, 2022 Annual	**Certified Max Gross Wt.:**	1800 lbs
Time Since Last Inspection:	21.8 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	63.1 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	C126 installed	**Engine Model/Series:**	IO-360
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:	HWY,338 ft msl	**Distance from Accident Site:**	9 Nautical Miles
Observation Time:	17:15 Local	**Direction from Accident Site:**	186°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots / None	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:	240°	**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	29.82 inches Hg	**Temperature/Dew Point:**	27°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	York, PA (THV)	**Type of Flight Plan Filed:**	VFR/IFR
Destination:	Fredericksburg, VA (EZF)	**Type of Clearance:**	VFR flight following
Departure Time:	16:30 Local	**Type of Airspace:**	Class B

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	38.74,-77.69(est)

Administrative Information

Investigator In Charge (IIC):	Mccarter, Lawrence
Additional Participating Persons:	Cody Watson; FAA/FSDO; Washington DC, DC
Original Publish Date:	January 30, 2024
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=105935