



Aviation Investigation Final Report

Location:	Waycross, Georgia	Accident Number:	ERA21LA382
Date & Time:	September 23, 2021, 11:15 Local	Registration:	N79RW
Aircraft:	WYDER ROBERT G MARQUART MA-5	Aircraft Damage:	Substantial
Defining Event:	Fuel starvation	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the experimental, amateur-built airplane reported that he fueled the airplane 4 days prior to the long cross-country flight and entered 24 gallons of useable fuel into his fuel computer prior to takeoff. While enroute, the pilot switched from the main fuel tank to the wing fuel tank and the engine lost all power. The pilot switched back to the main fuel tank and the engine regained power. He had not used the wing fuel tank for some time and suspected fuel contamination in that tank; however, he forgot to reset his fuel computer from 24 gallons to 16 gallons of useable fuel to account for 8 gallons in the wing tank that would not be available. During final approach to the destination airport, at low altitude, the engine lost all power due to fuel starvation. During the forced landing, the airplane became entangled in powerlines. Examination of the airplane by a Federal Aviation Administration inspector revealed substantial damage to the left wing. The inspector did not observe any preimpact mechanical malfunctions, nor did the pilot report any. The pilot added that in retrospect, he should have done a pretakeoff runup on the wing tank as he had not used that tank in a while. Additionally, he should have made an intermediate fuel stop once he realized that he would not be able to use the fuel in his wing tank. The reason for the failure of fuel to feed from the wing tank was not determined.

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 on approach due to fuel starvation.

Findings

Personnel issues	Fuel planning - Pilot
Aircraft	Fuel - Fluid management
Aircraft	Fuel - Unknown/Not determined

Factual Information

History of Flight

Approach	Fuel starvation (Defining event)
Approach	Loss of engine power (total)
Emergency descent	Off-field or emergency landing
Emergency descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Private	Age:	78, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	BasicMed None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 1, 2021
Flight Time:	1175 hours (Total, all aircraft), 586 hours (Total, this make and model), 1175 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	WYDER ROBERT G	Registration:	N79RW
Model/Series:	MARQUART MA-5	Aircraft Category:	Airplane
Year of Manufacture:	2014	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	404
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	February 21, 2021 Condition	Certified Max Gross Wt.:	1775 lbs
Time Since Last Inspection:	13 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	210 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	IO-360-B1E
Registered Owner:	On file	Rated Power:	180
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:	AYS,141 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	11:15 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.99 inches Hg	Temperature/Dew Point:	21°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ormond Beach, FL (OMN)	Type of Flight Plan Filed:	None
Destination:	Waycross, GA	Type of Clearance:	None
Departure Time:	08:45 Local	Type of Airspace:	Class D

Airport Information

Airport:	Waycross -Ware County Airport AYS	Runway Surface Type:	Asphalt
Airport Elevation:	141 ft msl	Runway Surface Condition:	Dry
Runway Used:	1	IFR Approach:	VOR
Runway Length/Width:	5992 ft / 100 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	31.204444,-82.395556(est)

Administrative Information

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Andre Cummings; FAA/FSDO; Atlanta, GA
Original Publish Date:	March 25, 2022
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=103980

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](#).