

Aviation Investigation Final Report

Injuries:

1 Minor

Location: Sarasota, Florida Accident Number: ERA22LA266

Date & Time: June 13, 2022, 17:44 Local Registration: N9577L

Aircraft: GRUMMAN AMERICAN AVN. CORP. AA-5 Aircraft Damage: Substantial

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Flight Conducted Under: Part 91: General aviation - Personal

Fuel contamination

Analysis

Defining Event:

The pilot stated that he departed visual flight rules and was returning to his home airport after work. On about a 3-mile final approach to the runway the pilot switched from the right to the left fuel tank and when he tried to add engine power found there was no response. He then switched back to the right tank and found the engine was still producing no power. The pilot executed a forced landing in a field, which resulted in substantial damage to the wings, tail, and fuselage. An inspection of the wing fuel tanks found the left tank to be empty and dry, and a sample from the right tank revealed all water with no visible fuel. When the carburetor was drained, it had about 2 tablespoons of liquid; half fuel and half water. The pilot stated that he did not check for fuel contamination before departing. He also reported that he fueled the airplane with fuel cans that were uncapped and exposed to rain over the weekend. The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane 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 pilot's inadequate preflight inspection, during which he failed to detect water contamination in the fuel system, which resulted in a loss of engine power on approach.

Findings

Personnel issues	Preflight inspection - Pilot
Aircraft	Fuel - Fluid condition

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Factual Information

History of Flight

Approach-VFR pattern final	Fuel contamination (Defining event)
Approach-VFR pattern final	Loss of engine power (total)
Emergency descent	Off-field or emergency landing

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	64,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	May 7, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	April 14, 2021
Flight Time:	13000 hours (Total, all aircraft), 3000 hours (Total, this make and model), 12000 hours (Pilot In Command, all aircraft), 104 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	GRUMMAN AMERICAN AVN. CORP.	Registration:	N9577L
Model/Series:	AA-5	Aircraft Category:	Airplane
Year of Manufacture:	1974	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	AA5-0577
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	October 2, 2020 Annual	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	6823 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	0-320-E2G
Registered Owner:	On file	Rated Power:	160
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Wetcorological informati	on and ingite i an		
Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KVNC,19 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	17:55 Local	Direction from Accident Site:	216°
Lowest Cloud Condition:	Clear	Visibility	9 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	31°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Pierce, FL (FPR)	Type of Flight Plan Filed:	None
Destination:	Sarasota, FL	Type of Clearance:	None
Departure Time:	16:46 Local	Type of Airspace:	Class G

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Airport Information

Airport:	Hidden River 22FA	Runway Surface Type:	Asphalt
Airport Elevation:	49 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	2524 ft / 49 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	27.300636,-82.251945

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Administrative Information

Investigator In Charge (IIC):	Hicks, Ralph
Additional Participating Persons:	Greg Joy; FAA/FSDO; Tampa, FL
Original Publish Date:	November 1, 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=105253

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.

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