Aviation Investigation Final Report

Location:	Ponte Vedra, Florida	**Accident Number:**	MIA05LA157
Date & Time:	September 14, 2005, 18:45 Local	**Registration:**	N9954U
Aircraft:	Grumman American AA-5A	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that after more than 30 minutes of flight, the engine began to sputter and it ceased operating. He said he immediately switched on the electric pump and attempted to restart the engine, but was unsuccessful. He said the engine was idling at approximately 1,000 rpm, with the propeller windmilling during the forced landing. He said he conducted emergency procedures, and made a forced landing into the marsh. During the landing, the airplane flipped upside down and came to rest inverted, partially submerged in the water. Postcrash examination of the accident airplane was performed by an FAA licensed airframe and powerplant mechanic, and no anomalies were noted.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power for undetermined reasons, which resulted in the airplane being ditched in a marsh.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CRUISE - NORMAL

Findings
1. REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: DITCHING
Phase of Operation: EMERGENCY LANDING

Findings
2. TERRAIN CONDITION - SWAMPY

Factual Information

On September 14, 2005, about 1845 eastern daylight time, a Grumman AA-5A, N9954U, registered to and operated by a private individual as a Title 14 CFR Part 91 personal flight, crashed into a marsh in Ponte Vedra Beach, Florida. Visual meteorological conditions prevailed, and no flight plan was filed. The airplane received substantial damage and the private pilot was uninjured. The flight originated from Ormond Beach, Florida, the same day, about 1645.

The pilot/owner stated that prior to the accident, he had recently purchased the airplane and it had been given a pre-purchase inspection as a condition of purchase. He further stated that during the course of the inspection some minor discrepancies were noted, and all were corrected by an FAA licensed airframe and powerplant mechanic. On September 3, 2005, he stated that he took possession of the airplane, and as he flew the airplane and during the course of leveling off at 1,000 feet after takeoff during a practice/familiarization flight, as he configured the airplane for cruise flight, as soon as the electric fuel pump was secured the engine sputtered and ceased operating. The pilot said that the dealer through whom he had purchased the airplane then took control and landed the airplane uneventfully in an open field. After the forced landing the pilot said that an airframe and powerplant inspector then inspected the fuel system and flushed the fuel tank and fuel lines 3 or 4 times, and concluded that the engine had ceased operating due to water contamination in the fuel system.

On the day of the accident, another pilot ferried the airplane to the location where he then took possession of it. The pilot who ferried it reported that he had difficulty starting the airplane, and that a mechanic was needed get it started. The pilot/owner further stated that after arriving and conducting a preflight inspection, and concluding that it was safe to fly the airplane, he took off, en route to Jacksonville, Florida, where he intended to perform pattern work and instrument training. He said that he climbed to 2,000 feet, secured the electric fuel pump, noting the pressure still in the green, established cruise flight at 2,000 feet, decreased throttle to 2500 rpm, and leaned the mixture to slightly less than peak EGT. More than 30 minutes later, at about 1720, he said the engine began to sputter and it ceased operating. He immediately switched on the electric pump, noting the pressure in the green band, and attempted to restart the engine. He said that the engine may not have ceased operating altogether, and may have been idling at approximately 1,000 rpm, because the propeller was windmilling during the forced landing. He said he conducted emergency procedures, and made a forced landing into the marsh. During the landing the airplane flipped upside down and came to rest inverted, partially submerged in the water.

Postcrash examination of the accident airplane was performed by an FAA licensed airframe and powerplant mechanic, under the supervision of an FAA airworthiness inspector. According to the FAA inspector, after recovery from the water, the detailed examination included

examination of the airframe, engine and flight controls, and no anomalies were noted. The inspector and mechanic both confirmed that when the engine and accessories were examined, oil and water was drained from the sump and cylinders, and the valve covers and spark plugs were removed and examined. they said that no anomalies were noted with the fuel system, and only water immersion related contamination was found in the carburetor. In addition, they said that the magnetos were removed examined, and tested with sparks being obtained on all terminals. In addition, the crankshaft was rotated and continuity of the valve system and drive train was obtained throughout the engine, with thumb compression being noted on all cylinders.

Pilot Information

Certificate:	Private	**Age:**	33,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	July 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	August 1, 2003
Flight Time:	86 hours (Total, all aircraft), 3 hours (Total, this make and model), 49 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Grumman American	**Registration:**	N9954U
Model/Series:	AA-5A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	AA5A0354
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	2200 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-320
Registered Owner:	David C Schaller	**Rated Power:**	180 Horsepower
Operator:	Curt Walkins	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	SGJ,10 ft msl	**Distance from Accident Site:**	
Observation Time:	17:15 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	9 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	0 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.89 inches Hg	**Temperature/Dew Point:**	32°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ormond Beach, FL (OMN)	**Type of Flight Plan Filed:**	None
Destination:	Craig, FL (CRG)	**Type of Clearance:**	None
Departure Time:	16:45 Local	**Type of Airspace:**	

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:**	30.166666,-81.349998

Administrative Information

Investigator In Charge (IIC):	Lovell, John
Additional Participating Persons:	William Meadows; FAA FSDO; Orlando, FL
Original Publish Date:	March 28, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=62528