



Aviation Investigation Final Report

Location:	North Augusta, South Carolina	Accident Number:	ERA09LA453
Date & Time:	August 9, 2009, 18:00 Local	Registration:	N808SA
Aircraft:	LAURIENZO GABRIEL A VARIEZE	Aircraft Damage:	Substantial
Defining Event:	Fuel starvation	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the amateur-built airplane stated that he was having problems with “dirt dabbers” getting into the fuel vent on his airplane, and he installed a black rubber cap on the fuel vent. The pilot conducted a preflight inspection prior to the accident flight; however, he failed to remove the cap. He departed and was in cruise flight at 2,000 feet mean sea level, paralleling an interstate highway when the engine lost power. The pilot further stated that he immediately knew what happened. "The engine had quit because the air could not enter the fuel tank due to the blocked fuel vent line, which caused the loss of engine power due to fuel starvation." Examination of the airplane revealed the fuel vent was blocked with a black cap. No other anomalies were noted with the airframe, flight controls, fuel system, engine assembly, or associated components.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power due to fuel exhaustion as a result of the pilot's inadequate preflight inspection.

Findings

Personnel issues	Preflight inspection - Pilot
Aircraft	(general) - Inadequate inspection

Factual Information

History of Flight

Prior to flight	Preflight or dispatch event
Enroute-cruise	Fuel starvation (Defining event)
Enroute-cruise	Loss of engine power (total)
Emergency descent	Collision with terr/obj (non-CFIT)

On August 9, 2009, about 1800 eastern daylight time, a Laurienzo Varieze, experimental amateur-built airplane, N808SA, registered to and operated by a private owner, as a Title 14 Code of Federal Regulations Part 91 personal flight, experienced a loss of engine power in cruise flight near North Augusta, South Carolina. The pilot made a forced landing to a highway and collided with power lines and a pole. Visual meteorological conditions prevailed and no flight plan was filed. The airplane received substantial. The private pilot received serious injuries. The flight originated from Twin Lakes Airport (S17), Graniteville, South Carolina, at an undetermined time.

The pilot stated he was having problems with “dirt dabbers” getting into the fuel vent, so he decided to correct the problem by installing a rubber cap on the fuel vent system. In addition, he planned on making an entry in the checklist, and adding a red flag to the cap, however he did not do either.

On the day of the accident, the pilot stated he conducted a preflight inspection, and failed to remove the black cap from the fuel vent. He departed S17 and was in cruise flight at 2,000 feet mean sea level, paralleling I-20 westbound, when the engine quit. The pilot stated, he immediately knew what happened, and wished he could have crawled outside and removed the black fuel vent cap. "The engine had quit because the air could not enter the fuel tank due to the blocked fuel vent line, which caused the loss of engine power due to fuel starvation."

The pilot switched the fuel tank selector from the main fuel tanks to the reserve fuel tank. The engine started and stopped about 30 seconds later. He observed an interstate highway, which was under construction and flew towards it. He lined up with the interstate, lowered the nose landing gear, lowered the flaps to the full down position, and assumed a 90 mph landing to the south. The airplane collided with wires, which the pilot had not seen. The nose of the airplane pitched down, the airplane banked to the right 90 degrees, and he was unable to recover the airplane. The airplane collided with the ground nose down and came to rest inverted. The pilot further stated, "There was nothing mechanically wrong with the airplane. The accident was complete pilot error."

Examination of the airplane by Federal Aviation Administration inspectors revealed the fuel vent was blocked with a black cap. No anomalies were noted with the fuel system, engine

assembly or associated components.

Pilot Information

Certificate:	Private	Age:	61, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
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:	March 30, 2007
Occupational Pilot:	No	Last Flight Review or Equivalent:	August 17, 2003
Flight Time:	418 hours (Total, all aircraft), 137 hours (Total, this make and model), 3 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	LAURIENZO GABRIEL A	Registration:	N808SA
Model/Series:	VARIEZE	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	1654
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	May 1, 2009 Condition	Certified Max Gross Wt.:	1200 lbs
Time Since Last Inspection:	3 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	680 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	C91 installed, not activated	Engine Model/Series:	O-200 SERIES
Registered Owner:	HART SAMUEL C JR	Rated Power:	100 Horsepower
Operator:	Samuel C. Hart Jr.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	AGS,144 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	17:53 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.12 inches Hg	Temperature/Dew Point:	24°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Graniteville, SC (S17)	Type of Flight Plan Filed:	None
Destination:	Graniteville, SC (S17)	Type of Clearance:	None
Departure Time:	17:40 Local	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	33.503055,-81.96389(est)

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol
Additional Participating Persons:	Wayne F Robinson; FAA/FSDO; Columbia, SC
Original Publish Date:	November 9, 2009
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=74479

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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](#).