



Aviation Investigation Final Report

Location:	Casa Grande, Arizona	Accident Number:	WPR10LA166
Date & Time:	March 17, 2010, 08:30 Local	Registration:	N50894
Aircraft:	KJONAAS VARIEZE	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During a cross-country flight, the pilot reported to air traffic control that the airplane's engine lost power. Later in the day, the wreckage was located on rough and uneven terrain. The first responder to the accident site reported that the airplane was inverted, and the injured pilot was trapped inside. While waiting for medical and rescue personnel, the pilot stated that he had run out of fuel and the engine had stopped running. Both wings of the airplane and its canard were found separated from the fuselage. There was a faint smell of auto fuel at the accident site, but no signs of fuel spillage in the soil or surrounding area.

After the wreckage was recovered, two Federal Aviation Administration (FAA) inspectors and a representative from the engine manufacturer examined the remains. They drained approximately 1/2 cup of liquid from the gascolator and estimated that it consisted of approximately 95 percent rust-contaminated water and 5 percent clear fluid, which was likely automobile gasoline. The bowl of the gascolator was found rusted and contained a reddish sludge. The engine exhibited drive train continuity and no abnormalities were identified which would have prevented normal operation. The airplane's maintenance records and pilot's flight log book were not located. The pilot's family members reported to Safety Board investigators that his medical condition precluded an interview or having him provide a written statement.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power during cruise flight due to fuel exhaustion.

Findings

Aircraft	Fuel - Fluid level
Environmental issues	Rough terrain - Contributed to outcome
Personnel issues	Decision making/judgment - Pilot
Personnel issues	Fuel planning - Pilot

Factual Information

History of Flight

Enroute-cruise	Fuel exhaustion (Defining event)
Enroute-cruise	Loss of engine power (total)
Emergency descent	Off-field or emergency landing
Landing-landing roll	Nose over/nose down

On March 17, 2010, at approximately 0830 mountain standard time, a Kjonaas VariEze experimental amateur-built airplane, N50894, sustained substantial damage during a forced landing following a loss of engine power near Casa Grande, Arizona. The private pilot, the sole occupant, was seriously injured. The owner/pilot was operating the airplane under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed for the personal cross-country flight, which had originated from Bisbee, Arizona, at approximately 0730, with the destination of Glendale, Arizona. A flight plan had not been filed.

The pilot called Glendale Municipal Airport (GEU) Air Traffic Control tower at approximately 0830, and reported that the airplane's engine had stopped running. He said that he was 25 nautical miles southeast of the airport; this was the last communication from the pilot. A search was initiated by Maricopa County Search and Rescue, and the airplane was located at approximately 1600. When the first rescue pilot landed his helicopter and approached the inverted airplane, he discovered the pilot was alive but trapped inside. While waiting for ground rescue and medical personnel, the pilot told him that he had run out of fuel and the engine had stopped running.

Two Federal Aviation Administration (FAA) inspectors examined the wreckage. They found that several trees had been topped approximately 75 yards from the wreckage. The airplane was found inverted with both wings and the canard broken from the fuselage. The main wish-bone landing gear assembly had separated from the fuselage. The wooden propeller was found in dry-rotted condition and displayed minimal damage. The fuselage and engine were covered with oil; there was a faint smell of auto fuel, but no signs of fuel spillage in the soil or surrounding area. Both fuel tanks had been compromised.

On March 22, 2010, a postaccident examination of the wreckage was performed at a salvage yard by two FAA inspectors and a representative from the engine manufacturer. They drained approximately 1/2 cup of liquid from the gascolator into a clean glass jar. The liquid consisted of approximately 95% rust-contaminated water and 5% clear fluid, which smelled like auto fuel. The gascolator screen was covered by approximately 25% debris and other contaminants. The bottom of the gascolator was rusted and contained a reddish sludge. The engine exhibited drive train continuity and no abnormalities were identified which would have prevented normal operation.

The FAA inspectors were unable to locate the airplane's maintenance records or pilot's flight log book. Family members reported to the National Transportation Safety Board's investigator-in-charge that the pilot's medical condition precluded an interview or having him provide a written statement.

Pilot Information

Certificate:	Private	Age:	64, 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 Unknown	Last FAA Medical Exam:	April 19, 2007
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 1275 hours (Total, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	KJONAAS	Registration:	N50894
Model/Series:	VARIEZE	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	1160
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	1100 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	442 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	O-200 SERIES
Registered Owner:	BLANCHETTE CHARLES T	Rated Power:	100 Horsepower
Operator:	BLANCHETTE CHARLES T	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	GEU,1071 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	08:47 Local	Direction from Accident Site:	340°
Lowest Cloud Condition:	Few / 25000 ft AGL	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.14 inches Hg	Temperature/Dew Point:	18°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bisbee, AZ (DUG)	Type of Flight Plan Filed:	Unknown
Destination:	Glendale, AZ (GEU)	Type of Clearance:	None
Departure Time:	07:30 Local	Type of Airspace:	

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:	33.221942,-112.134719

Administrative Information

Investigator In Charge (IIC):	Struhsaker, James
Additional Participating Persons:	Jeff A Miller; FAA FSDO; Scottsdale, AZ Andrew L Swick; TCM; Rancho Cordova, CA
Original Publish Date:	April 28, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=75547

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