



National Transportation Safety Board Aviation Accident Final Report

Location:	Vero Beach, FL	Accident Number:	ERA09LA001
Date & Time:	10/01/2008, 1502 EDT	Registration:	N373DB
Aircraft:	Bezinque Alisport-Silent	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot of the powered glider stated that about 30 seconds after takeoff, about 170 feet above the ground, the engine rpm decreased. He then leveled the glider and the engine stopped producing power. The pilot entered a left turn to land to the east and the engine "suddenly regained power." He then turned the glider to return to the airport, but when he leveled the wings the engine again stopped producing power. Lacking the altitude to return to the airport, the pilot chose a road for a forced landing. The landing area was blocked with cars and power poles, so he landed the glider "hard" in the grass adjacent to the roadway to avoid the obstacles. A detailed examination of the glider revealed that with electrical power applied, the fuel boost pump did not pump fuel from the pump outlet port.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the electric fuel boost pump which resulted in a loss of engine power due to fuel starvation.

Findings

Aircraft	Fuel pumps - Failure (Cause)
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Factual Information

On October 1, 2008, at 1502 eastern daylight time, an experimental amateur-built Alisport Silent-IN powered glider, N373DB, was substantially damaged during a forced landing after takeoff from Indian River Aerodrome (FL74), Vero Beach, Florida. The certificated private pilot/owner was seriously injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local personal flight that was conducted under the provisions of 14 Code of Federal Regulations (CFR) Part 91.

The pilot was interviewed by telephone, and provided a written statement. The pilot explained that the engine was electronically controlled, and that engine start was "automatic" and the engine would only accelerate from idle once it had "warmed up." Once warm, the pilot would advance the throttle to full operating rpm.

The pilot said that once he advanced the throttle, the engine "reached a satisfactory static rpm of 6,190" prior to takeoff from runway 17. During the initial climb to the south, about 30 seconds after takeoff, the engine rpm decreased to 5,500 and the pilot leveled the glider 170 feet above the ground, at which point the engine stopped producing power.

The pilot entered a left turn to land to the east, and the engine "suddenly regained power." The pilot then turned the glider to return to the airport, and when he leveled the wings, the engine again stopped producing power. Lacking the altitude to return to the airport, the pilot chose a road for a forced landing. The landing area was blocked with cars and power poles, so he landed the glider "hard" in the grass adjacent to the roadway to avoid the obstacles.

The pilot held a Federal Aviation Administration (FAA) private pilot certificate with a rating for airplane single engine land and glider aero-tow. He reported 2,800 total hours of flight experience, 1,000 hours of which were in gliders, and 36 hours of which were in the accident aircraft make and model. His most recent FAA third class medical certificate was issued in January 2007.

According to FAA records, the powered glider was manufactured in 2003 from a kit. The pilot/owner reported that its most recent annual inspection was completed December 2007, at 76 aircraft hours. The glider had accrued about 110 total aircraft hours at the time of the accident.

At 1453, the weather reported at Vero Beach Municipal Airport (VRB), located 6 miles south of the accident site, included visibility 10 miles, few clouds at 5,500 feet, a broken ceiling at 7,000 feet, and winds from 090 degrees at 7 knots. The temperature was 28 degrees Celsius, and the dew point was 22 degrees Celsius. The calculated density altitude was 1,973 feet.

An FAA inspector examined the glider at the accident site and all major components were accounted for. The cockpit canopy was shattered, and pieces were scattered forward of the fuselage. The cockpit, fuselage, and wings appeared largely intact. The empennage was fractured aft of the cabin, but the tailboom and tail control surfaces appeared otherwise intact.

Control continuity was established from the cockpit area to the flight control surfaces. The retractable engine pylon was still deployed and locked in the up position. The engine and propeller appeared intact. The on-scene examination revealed no pre-impact mechanical anomalies.

Reexamination of the glider by the FAA inspector revealed that with electrical power applied,

the fuel boost pump did not pump fuel from the pump outlet port.

History of Flight

Initial climb	Sys/Comp malf/fail (non-power) Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing
Landing-flare/touchdown	Hard landing

Pilot Information

Certificate:	Private	Age:	57, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Single
Other Aircraft Rating(s):	Glider	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With Waivers/Limitations	Last Medical Exam:	01/31/2007
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2800 hours (Total, all aircraft), 36 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Bezinque	Registration:	N373DB
Model/Series:	Alisport-Silent	Aircraft Category:	Glider
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	37K
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	12/31/2007, Annual	Certified Max Gross Wt.:	640 lbs
Time Since Last Inspection:	34 Hours	Engines:	1 Reciprocating
Airframe Total Time:	110 Hours	Engine Manufacturer:	
ELT:	Installed, not activated	Engine Model/Series:	
Registered Owner:	C and V Aircraft Corporation	Rated Power:	28 hp
Operator:	Vincent Powers	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	VRB, 24 ft msl	Observation Time:	1453 EDT
Distance from Accident Site:	6 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	233°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Few / 5500 ft agl	Temperature/Dew Point:	28° C / 22° C
Lowest Ceiling:	Broken / 7000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	7 knots	Visibility (RVR):	
Altimeter Setting:	29.8 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Precipitation		
Departure Point:	Vero Beach, FL (FL74)	Type of Flight Plan Filed:	None
Destination:	Vero Beach, FL (FL74)	Type of Clearance:	None
Departure Time:	1500 EDT	Type of Airspace:	Class G

Airport Information

Airport:	Indian River Aerodrome (FL74)	Runway Surface Type:	Grass/turf
Airport Elevation:	25 ft	Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	2600 ft / 200 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious		

Administrative Information

Investigator In Charge (IIC):	Brian C Rayner	Adopted Date:	11/09/2009
Additional Participating Persons:	Robert Potts; FAA/FSDO; Orlando, FL Leo Benetti-Longhini; Alisport Silent; Nashville, TN		
Publish Date:	11/17/2009		
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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