Aviation Investigation Final Report

Location:	Bardstown, Kentucky	**Accident Number:**	NYC04LA043
Date & Time:	December 3, 2003, 17:15 Local	**Registration:**	N97JW
Aircraft:	Barness Pulsar I	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot had purchased the homebuilt airplane the day of the accident, and conducted a 1-hour "familiarization" flight with the pervious owner. After the "familiarization" flight, the previous owner departed the airport by car, and the pilot informed the airport manager that he was going to try and fly the airplane again. The pilot then contacted his wife by cell phone, and requested her to proceed to the airport to pick him up. Upon the arrival of the pilot's wife, she observed the airplane on fire in the grass area left of runway 02. There were no known witnesses to the accident. Examination of the airframe did not reveal any abnormalities. Examination of the engine revealed extensive post-crash fire damage, and further examination of it could not be performed due to it being seized.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's loss of aircraft control, resulting in a subsequent impact with terrain. A factor related to the accident was the pilot's unfamiliarity with the airplane.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

2. (F) LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
3. TERRAIN CONDITION - GRASS

Factual Information

On December 3, 2003, at 1715 eastern standard time, a homebuilt Pulsar I, N97JW, was destroyed while departing from the Samuels Field Airport (BRY), Bardstown, Kentucky. The certificated commercial pilot was fatally injured. Night visual meteorological conditions prevailed, and no flight plan was filed for the personal flight conducted under 14 CFR Part 91.

According to a Federal Aviation Administration (FAA) inspector, the pilot had purchased the airplane the day of the accident, and conducted a 1-hour "familiarization" flight with the pervious owner.

After the "familiarization" flight, the previous owner departed the airport by car, and the pilot informed the airport manager that he was going to try and fly the airplane again. The pilot then contacted his wife by cell phone, and requested her to proceed to the airport to pick him up.

Upon the arrival of the pilot's wife, she observed the airplane on fire in the grass area left of runway 02.

There were no known witnesses to the accident.

The FAA inspector further stated that the airplane impacted the ground in a grass area left of runway 02, about 2,300 feet from the threshold. Examination of the first impact marks revealed damage from the left wing, and a wooden propeller blade, which was separated from the engine. The only damage observed on the separated propeller blade was at the hub section.

The remainder of the airplane came to rest about 30 feet beyond the first impact marks, where a post-crash fire consumed the wreckage. The left wing was separated from the fuselage, and all flight control surfaces were accounted for at the scene.

Examination of the Rotax engine revealed extensive post-crash fire damage. The second wooden propeller blade, which remained attached to the engine, was not damaged. Further examination of the engine could not be performed due to it being seized.

The airplane's maintenance records were destroyed in the post crash fire.

The pilot held a commercial pilot certificate with a rating for airplane single engine land.

His most recent FAA medical certificate was issued on November 12, 2003. At that time, he reported 2,700 hours of total flight experience.

Toxicological testing was conducted at the FAA Toxicology Accident Research Laboratory, Oklahoma City, Oklahoma.

Runway 02 at BRY was a 5,003-foot long, 75-foot wide, asphalt runway.

The wind conditions at an airport located 24 miles northwest of BRY, about the time of the accident, were from 110 degrees at 10 knots.

Review of the operator manual for the engine revealed, "Danger! This engine, by its design, is subject to sudden stoppage! Engine stoppage can result in crash landings. Such crash landings can lead to serious bodily injury or death. Never fly the aircraft equipped with this engine at locations, airspeeds, altitudes, or other circumstances from which a successful no-power landing cannot be made, after sudden engine stoppage."

The manual further stated, "Warning! This is not a certificated aircraft engine. It has not received any safety or durability testing, and conforms to no aircraft standards. It is for use in experimental, uncertificated aircraft and vehicles only in which an engine failure will not compromise safety. User assumes all risk of use, and acknowledges by his use that he knows this engine is subject to sudden stoppage."

Pilot Information

Certificate:	Commercial	**Age:**	62,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Unknown
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	November 12, 2003
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	2700 hours (Total, all aircraft), 1 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Barness	**Registration:**	N97JW
Model/Series:	Pulsar I	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	198
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	190 Hrs at time of accident	**Engine Manufacturer:**	Rotax
ELT:	Not installed	**Engine Model/Series:**	582
Registered Owner:	Carl R. McDaniel	**Rated Power:**	
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	SDF	**Distance from Accident Site:**	24 Nautical Miles
Observation Time:	16:56 Local	**Direction from Accident Site:**	330°
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	Broken / 13000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	110°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.27 inches Hg	**Temperature/Dew Point:**	10°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bardstown, KY (BRY)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	17:15 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Samuels Airport BRY	**Runway Surface Type:**	Asphalt
Airport Elevation:	669 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	02	**IFR Approach:**	None
Runway Length/Width:	5003 ft / 75 ft	**VFR Approach/Landing:**	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	37.814167,-85.499443

Administrative Information

Investigator In Charge (IIC):	Demko, Stephen
Additional Participating Persons:	William Fisher; FAA; Louisville, KY
Original Publish Date:	March 30, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=58419