



National Transportation Safety Board Aviation Accident Final Report

Location:	Schaumburg, IL	Accident Number:	CEN11LA049
Date & Time:	11/01/2010, 1530 CDT	Registration:	N71823
Aircraft:	LUSCOMBE 8A	Aircraft Damage:	Substantial
Defining Event:	Aerodynamic stall/spin	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

A witness reported seeing the airplane takeoff and climb to about 150 feet above the ground. At that point, the sound from the engine ceased, and the airplane stalled and spun to the left making one-half revolution before striking the ground. Examination of the airframe, control system, and engine revealed no evidence of any preimpact mechanical anomalies that would have precluded normal operation. Examination of the cockpit engine controls showed that the carburetor heat was off and the engine primer was unlocked and pulled out. Although the weather conditions at the time of the accident were conducive to carburetor icing, they were not in the range likely to result in serious carburetor icing. Examination of the spark plugs indicated a rich mixture condition. The primer position and the condition of the spark plugs indicate that the engine power loss was likely due to an overly rich mixture resulting from excess fuel being pulled through the primer into the engine's intake system when takeoff power was applied. Since the purpose of the primer is to assist in starting a cold engine, it is possible the pilot used the primer when starting the engine and did not ensure that it was in and locked before initiating take off.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot did not maintain airspeed following a loss of engine power during takeoff climb, which resulted in an aerodynamic stall. Contributing to the accident was the loss of engine power due to the unlocked engine primer.

Findings

Aircraft	Airspeed - Not attained/maintained (Cause)
	Engine controls - Incorrect use/operation (Factor)

Factual Information

HISTORY OF FLIGHT

On November 1, 2010, about 1530 central daylight time, a Luscombe 8A, N71823, sustained substantial damage when it impacted the ground after takeoff from runway 11 (3,800 feet by 100 feet, concrete), at the Schaumburg Regional Airport, Schaumburg, Illinois. The pilot, who was the sole occupant, was fatally injured. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations, Part 91 as a personal flight. Visual flight rules (VFR) conditions prevailed for the flight, which was not operated on a flight plan. The flight was originating at the time of the accident and was en route to the Sylvania Airport, Sturtevant, Wisconsin.

A commercial pilot who was at the airport was a witness to the accident. He reported that the initial climb after takeoff appeared to be at a normal pitch angle and when the airplane reached about 150 feet above ground level (agl), the sound of the engine ceased. The airplane “hung there” and then stalled. The left wing dropped and the airplane made about one-half of a revolution before it impacted the ground. The witness stated that he could see that the propeller was turning during the accident sequence. He also reported that prior to the accident flight the pilot fueled the airplane using a red fuel can and that the pilot may have had trouble getting the airplane’s engine started; however, the witness stated that the engine sounded normal during its taxi and subsequent takeoff until the point where the engine sounds ceased.

PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with single-engine land, single-engine sea, glider, and instrument airplane ratings. He also held a flight instructor certificate with a rating for single engine airplanes. The pilot’s most recent second class airman medical certificate was issued on September 11, 2007. The pilot reported having 1,100 hours of flight experience on his application for that medical certificate.

AIRCRAFT INFORMATION

The airplane was a 1946 Luscombe model 8A, serial number 3250. It was a 2 place airplane with tailwheel type landing gear and side-by-side seating. It had a strut braced high-wing. The wing had aluminum covering, and the fuselage was of predominately aluminum construction. The airplane was powered by a Continental A-65-8 engine rated to produce 65 horsepower. The airplane’s most recent annual inspection was completed on September 16, 2010.

METEOROLOGICAL INFORMATION

At 1552, the recorded weather conditions at the Dupage Airport, about 8 miles southwest of the accident site, were: Wind 280 degrees at 6 knots; 10 statute miles visibility; broken clouds at 8,000 feet agl; temperature 22 degrees Celsius; dew point 6 degrees Celsius.

WRECKAGE AND IMPACT INFORMATION

The airplane impacted the ground about 20 feet to the side of the runway. The aft fuselage was partially separated from the forward fuselage at the aft cabin. All of the airplane’s tail surfaces remained attached to the aft fuselage. The engine and forward fuselage were crushed rearward. The wings exhibited impact damage to their leading edges and the wings remained attached to the upper cabin of the fuselage. The upper cabin section of the airplane had separated from the

remainder of the fuselage. The wing struts remained attached at all points and the main landing gear remained attached to the fuselage. Examination of the airplane's control system revealed no preimpact anomalies.

Examination of the cockpit controls for the engine revealed that the magneto switch was in the "Right" position and the key was bent, the carburetor heat was off, the throttle was full forward, and the engine primer was out.

Examination of the airplane's engine confirmed crankshaft rotation, valve train continuity, and magneto operation. Compression was evident on 3 cylinders during initial examination of the engine. Compression on the fourth cylinder was evident after "staking" the valves. All spark plugs exhibited sooting, consistent with a rich mixture. Fuel was present in the carburetor and the fuel strainer was free of obstruction. No preimpact anomalies were found with respect to the engine.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot on November 2, 2010, by the Cook County Medical Examiner's Office. The autopsy findings included "multiple injuries," and the report listed the specific injuries. The cause of death was attributed to these injuries.

Forensic toxicology was performed on specimens from the pilot by the FAA Bioaeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma. The toxicology report listed negative findings for all tests performed.

ADDITIONAL INFORMATION

Referencing Federal Aviation Administration Special Airworthiness Information Bulletin CE-09-35, the temperature and dew point at the time of the accident were conducive for the formation of carburetor icing.

The accident airplane was a standard category airplane but its specifications allowed it to be operated as a light sport airplane. When operated as a light sport airplane, the pilot is not required to possess a current airman medical certificate. Pilots are allowed to use their state driver's license to establish medical fitness in-lieu of an actual airman medical certificate unless their most recent application for an airman medical certificate was denied.

History of Flight

Initial climb	Loss of engine power (total) Aerodynamic stall/spin (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial	Age:	66, Male
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 2 With Waivers/Limitations	Last Medical Exam:	09/11/2007
Occupational Pilot:		Last Flight Review or Equivalent:	09/22/2010
Flight Time:	1100 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	LUSCOMBE	Registration:	N71823
Model/Series:	8A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	3250
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	09/16/2010, Annual	Certified Max Gross Wt.:	1260 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	A-65-8
Registered Owner:	On file	Rated Power:	65 hp
Operator:	On file	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	DPA, 759 ft msl	Observation Time:	1552 CDT
Distance from Accident Site:	8 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	225°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	22°C / 6°C
Lowest Ceiling:	Broken / 8000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	6 knots, 280°	Visibility (RVR):	
Altimeter Setting:	30.01 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Schaumburg, IL (06C)	Type of Flight Plan Filed:	Unknown
Destination:	Sturtevant, WI (C89)	Type of Clearance:	None
Departure Time:	1530 CDT	Type of Airspace:	

Airport Information

Airport:	Schaumburg Regional Airport (06C)	Runway Surface Type:	Concrete
Airport Elevation:	801 ft	Runway Surface Condition:	Dry
Runway Used:	29	IFR Approach:	None
Runway Length/Width:	3800 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	John M Brannen	Adopted Date:	03/08/2012
Additional Participating Persons:	Sandra Boerman; FAA-Dupage FSDO; West Chicago, IL		
Publish Date:	03/08/2012		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=77710		

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