



## National Transportation Safety Board Aviation Accident Factual Report

---

<b>Location:</b>	Fruitport, MI	<b>Accident Number:</b>	CHI07LA126
<b>Date &amp; Time:</b>	05/01/2007, 1715 EDT	<b>Registration:</b>	N1120B
<b>Aircraft:</b>	Luscombe 8A	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Serious

**Flight Conducted Under:** Part 91: General Aviation - Personal

---

On May 1, 2007, about 1715 eastern daylight time, a Luscombe 8A, N1120B, was substantially damaged during a forced landing to a field following a loss of engine power during take off from the Flying-A-Ranch Airport (39Z), Fruitport, Michigan. The certificated flight instructor (CFI) and dual student received serious injuries. The 14 Code of Federal Regulations Part 91 instructional flight departed 39Z about 1715 for a local flight. Visual meteorological conditions prevailed at the time of the accident. No flight plan was filed.

The CFI reported he had flown the airplane for about 45 minutes with another pilot and had shut the airplane down in order to switch pilots. Prior to takeoff on the accident flight, the CFI got in the left seat and the dual student pilot got in the right seat. According to the CFI, the main body fuel tank had just less than 3/4 of a tank of fuel [10.5 gallons] and the wing tank had 6-7 gallons of fuel. The CFI taxied the airplane for takeoff, and after the engine run-up was completed, departed from runway 9. During the climb out the engine lost power. The CFI lowered the nose to establish a glide speed about 65 - 70 mph, and executed a forced landing to a blueberry field. He applied carburetor heat, switched magnetos, and pumped the throttle but with no effect. The CFI saw power line wires and tried to avoid them by going under the wires, but the airplane's right wing hit a power line pole. The airplane rotated to the right and landed in the ditch next to a road. The CFI was able to crawl out of the wreckage, but rescue personnel extracted the dual student from the airplane.

The engine was shipped to Teledyne Continental Motors (TCM) in Mobile, Alabama, for inspection. The engine was put on an engine test stand and an engine run was conducted. The engine run revealed that the engine met TCM operational specifications.

The maximum gross weight of the airplane was 1,260 pounds. The empty weight of the airplane was about 736 pounds. The weight of the pilot was about 255 pounds, and the weight of the dual student was about 220 pounds.

The 1655 surface weather observation at the Muskegon County Airport (MKG), Muskegon, Michigan, located 6 miles northwest of 39Z, indicated that the temperature was 16 degrees Celsius and the dew point was 12 degrees Celsius.

The Transport Canada carburetor-icing chart indicated "Serious icing - any power" with a temperature of 16 degrees Celsius and a dew point of 12 degrees Celsius.

The mechanic who conducted the airplane's annual inspection five months earlier and who received dual instruction in the airplane before the accident flight stated that he encountered carburetor icing while taxiing and while in cruise flight. A placard located next to the carburetor heat lever on the instrument panel stated the following: "Full Carburetor Air Heat Required for Takeoff and Landing." The placard was originally intended to correct fuel flow problems in early model 8As with single fuselage fuel tanks (during takeoffs with high pitch attitudes). A review of two Luscombe owners handbooks from the late 1940s and early 1950s found guidance recommending full carburetor heat for takeoffs and landings for all Luscombe models to prevent engine power loss caused by carburetor ice.

### Flight Instructor Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	30, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land; Single-engine Sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without Waivers/Limitations	<b>Last FAA Medical Exam:</b>	04/01/2007
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	06/01/2005
<b>Flight Time:</b>	2560 hours (Total, all aircraft), 8 hours (Total, this make and model), 2380 hours (Pilot In Command, all aircraft), 51 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Student Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 None	<b>Last FAA Medical Exam:</b>	03/01/2004
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	06/01/2005
<b>Flight Time:</b>	400 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Luscombe	Registration:	N1120B
Model/Series:	8A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	5747
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	12/01/2006, Annual	Certified Max Gross Wt.:	1260 lbs
Time Since Last Inspection:	0.8 Hours	Engines:	1 Reciprocating
Airframe Total Time:	1671 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	A & C 65
Registered Owner:	On file	Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MKG, 628 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	1755 EDT	Direction from Accident Site:	315°
Lowest Cloud Condition:	Few / 4000 ft agl	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.81 inches Hg	Temperature/Dew Point:	17°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fruitport, MI (39Z)	Type of Flight Plan Filed:	Unknown
Destination:		Type of Clearance:	None
Departure Time:	1715 EDT	Type of Airspace:	

## Airport Information

Airport:	Flying-a-Ranch (39Z)	Runway Surface Type:	Grass/turf
Airport Elevation:	630 ft	Runway Surface Condition:	Soft
Runway Used:	9	IFR Approach:	None
Runway Length/Width:	1925 ft / 70 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Serious	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Serious	<b>Latitude, Longitude:</b>	43.105000, -86.123611

## Administrative Information

<b>Investigator In Charge (IIC):</b>	James Silliman
<b>Additional Participating Persons:</b>	John M Parrish; Grand Rapids FSDO; Grand Rapids, MI
<b>Investigation Docket:</b>	NTSB accident and incident docket 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .